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No. 4

Bulletin

Bradley Polytechnic Institute

The School of Arts
and Sciences



Peoria, Illinois

May, 1921

BRADLEY POLYTECHNIC INSTITUTE

PEORIA, ILLINOIS

FOUNDED 1897



THE GYMNASIUM

CONSERVATORY OF MUSIC

THE MANUAL ARTS BUILDINGS

HOROLOGY HALL

BRADLEY HALL

The Large Athletic Field lies between the Gymnasium and the Manual Arts Buildings. The Power Plant, Administration Bldg., Girls' Dormitory and Practice House for Domestic Economy students are not included in this partial view of the campus.

Bradley Polytechnic Institute

The School of Arts and Sciences

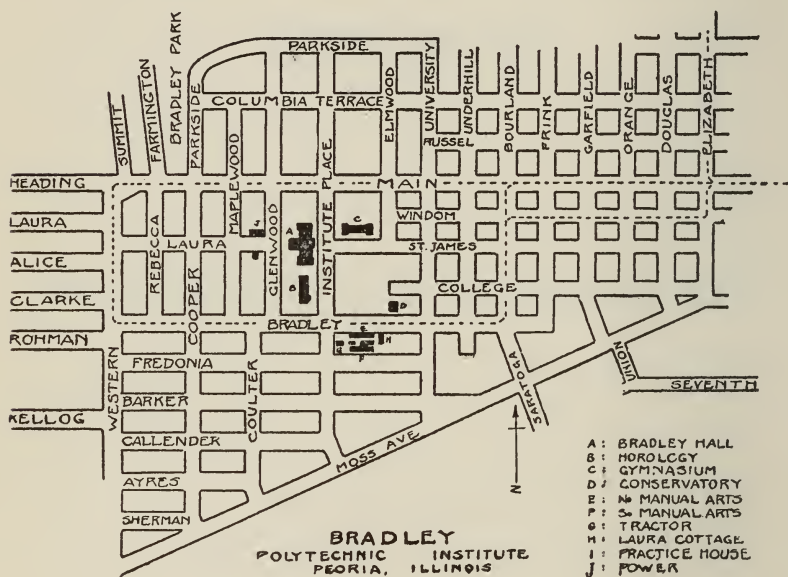
Catalogue 1920-1921
Announcements for 1921-1922

Published by Bradley Polytechnic Institute
March, May, June, December

PEORIA, ILLINOIS
MAY, 1921

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October 3, 1917, authorized on July 5, 1918.

A SECTION OF THE WEST BLUFF, SHOWING LOCATION OF THE BRADLEY CAMPUS



The Bradley Campus is located on the West Bluff at Institute Place, between Main Street and Bradley Avenue. It is reached from any depot by taking a street car marked either "M" (Main), or "B" (Bradley). On either line leave the car at Institute Place. The street car route is shown by the dotted lines.

The main building, Bradley Hall, and the Horological Building, face Institute Place between Main Street and Bradley Avenue. The group of buildings devoted to the Manual Arts and Vocational Work are located on Bradley Avenue. The two athletic fields lie one to the North and the other to the South of the Gymnasium. The Bradley Avenue cars will stop in front of the Conservatory of Music (D).

The offices at Bradley Hall, Horological Building and the South Manual Arts Building are open each week-day from 8 until 5 o'clock with the exception of Saturday afternoon.

INSTITUTE CALENDAR FOR 1921-1922

September 14.....	Wednesday.....	First Semester Begins
October 8.....	Saturday.....	Founder's Day
November 24-25....	Thursday and Friday.....	Thanksgiving Holidays
December 21.....	Wednesday.....	Last Day Before Christmas Recess
January 4.....	Wednesday.....	First Day After Christmas Recess
February 3.....	Friday.....	First Semester Ends
February 6.....	Monday.....	Second Semester Begins
February 22.....	Wednesday.....	Washington's Birthday
March 24.....	Friday.....	Last Day Before Spring Recess
April 3.....	Monday.....	First Day After Spring Recess
May 30.....	Tuesday.....	Memorial Day
June 9.....	Friday.....	Open Night
June 16.....	Friday.....	Convocation Day

1921—1922

JULY							NOVEMBER							MARCH							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
					1	2			1	2	3	4	5				1	2	3	4	
3	4	5	6	7	8	9	6	7	8	9	10	11	12	5	6	7	8	9	10	11	
10	11	12	13	14	15	16	13	14	15	16	17	18	19	12	13	14	15	16	17	18	
17	18	19	20	21	22	23	20	21	22	23	24	25	26	19	20	21	22	23	24	25	
24	25	26	27	28	29	30	27	28	29	30				26	27	28	29	30	31		
31																					
AUGUST							DECEMBER							APRIL							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
	1	2	3	4	5	6					1	2	3							1	
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	
28	29	30	31				25	26	27	28	29	30	31	23	24	25	26	27	28	29	
SEPTEMBER							JANUARY							MAY							
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				1	2	3		1	2	3	4	5	6	7		1	2	3	4	5	6
4	5	6	7	8	9	10	8	9	10	11	12	13	14	7	8	9	10	11	12	13	
11	12	13	14	15	16	17	15	16	17	18	19	20	21	14	15	16	17	18	19	20	
18	19	20	21	22	23	24	22	23	24	25	26	27	28	21	22	23	24	25	26	27	
25	26	27	28	29	30		29	30	31					28	29	30	31				
OCTOBER							FEBRUARY							JUNE							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
						1				1	2	3	4					1	2	3	
2	3	4	5	6	7	8	5	6	7	8	9	10	11	4	5	6	7	8	9	10	
9	10	11	12	13	14	15	12	13	14	15	16	17	18	11	12	13	14	15	16	17	
16	17	18	19	20	21	22	19	20	21	22	23	24	25	18	19	20	21	22	23	24	
23	24	25	26	27	28	29	26	27	28					25	26	27	28	29	30		
30	31																				

TRUSTEES

JOHN M. NIEHAUS		Peoria
	<i>President</i>	
SAMUEL D. WEAD		Peoria
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ZEALY M. HOLMES		Mossville
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CHARLES D. THOMAS		Peoria
ROSS S. WALLACE		Peoria
HENRY M. PINDELL		Peoria
H. E. CHUBBUCK		Peoria

ADVISORS

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ALBION W. SMALL		Chicago
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COMMITTEES

<i>Finance</i>	. . .	MESSRS. PINDELL, HOLMES, WALLACE, WEAD, CHUBBUCK
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<i>Publicity and Printing</i>	. . .	MESSRS. PINDELL, WESTLAKE, MACCLYMENT
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“The objects for which this corporation is formed are to organize and maintain forever a school for the education of young people of both sexes in all the practical and useful arts, science and learning usually taught in polytechnic schools, including a department of ethics in which instruction shall be given in the principles of morality and right living as exemplified in the life and teachings of Jesus Christ; and so far as the resources of the Institute shall warrant, there shall be added such courses of study and means of instruction in science, literature and art, as may be deemed advisable by the Trustees; but the chief aim of the Institute shall be to furnish its students with the means of living independent, industrious and useful lives by the aid of a practical knowledge of the useful arts and sciences.”

HISTORICAL STATEMENT

BRADLEY POLYTECHNIC INSTITUTE was founded by Mrs. Lydia Bradley in memory of her deceased husband and children. A charter was secured in the fall of 1896. On April 10th of the following year, work was begun upon two buildings, Bradley Hall devoted to general education and Horology Hall, giving instruction in Watchwork, Jewelry, Engraving and Optics. Regular school work was begun on October 4, 1897. The death of Mrs. Bradley occurred on January 16, 1908, just after the close of the first decade in the history of the Institute. Provision had been made in her will for the permanent endowment of the institution which she had founded.

In 1904 a Station of the United States Weather Bureau was established at the North end of the campus. During the year 1908-9, a gymnasium building was erected, containing a gymnasium for men and also one for women, each with complete equipment. In 1911 a dwelling house belonging to the estate was devoted to the uses of the Home Economics Department as a "Practice House." During the summer of this year two large factory buildings on Bradley Avenue, adjoining the campus, were remodeled for the use of the Manual Arts Department, and a large Power Plant furnishing heat and power for all buildings was begun. In 1918 two buildings were erected for the use of the Automobile and the Tractor Departments. The Peoria Musical College was made a part of the Institute in June, 1920, under the title "The Bradley Conservatory of Music." This department now occupies a building suited to its needs on Bradley Avenue.

At its founding Bradley Institute, besides the Horological Department, offered four years of academy and two years of college work. The College courses were classed under four groups—Science, Literature, Classics, Engineering. A great variety of opportunity was afforded for those interested in Home Economics, Manual Training, or various forms of shop work designed for vocational training. From time to time notable changes and additions in the curriculum have been made—teacher training courses in Manual Training and Home Economics, covering either two or four years of college work, the latter giving the B. S. degree; a Summer School, the Evening Classes, a Vocational School, an Automobile School, a winter course in the Tractor, and the Conservatory of Music. In 1920, due to the generous support of Peoria citizens and present and former students of the Institute, many new general college courses were added, leading to the A. B. and B. S. degrees. The Academy is being dropped one year at a time. Only the fourth year remains.

The United States Government made important use of the Institute during the war. An Army School for Mechanics, Camp Bradley, was established in April, 1918. Four successive detachments of from 300 to 500 men were stationed at Bradley for intensive training covering in each case an eight weeks' period. Automobile Mechanism, Blacksmithing, Machine Shop, Carpentry, Instrument Repair, Practical Electricity, Gunsmithing, Lens Grinding, and the Tractor were the subjects taught. In September, 1918, a unit of the S. A. T. C. was added. The soldiers were quartered in the Gymnasium and in barracks erected for that purpose. Temporary changes were made in other buildings to meet the need. The government was most cordial in its appreciation of the effective work done at Bradley.

Since the founding of the Institute in 1897, many thousand young men and young women have enjoyed its privileges. Its graduates already number more than a thousand and may be found actively engaged in helpful work in practically every state of the Union.

LOCATION

Bradley Institute is located at the western edge of the City of Peoria in one of its best residence districts. It occupies an attractive campus of about 25 acres.

Peoria is a prosperous city of about 80,000 inhabitants and is the center of a much larger population. It is well fitted to be the location of college and vocational training by reason of its situation—almost at the center of the great state of Illinois and in a rich farm district,—its size, the number and variety of its manufactories, the unusual purity of its water supply, its excellent libraries, newspapers, and schools. It presents remarkable advantages of railway and traction service. In short, it offers the benefits of a large city and few, if any, of its disadvantages.

FACULTY OF THE SCHOOL OF ARTS AND SCIENCE

FOR THE YEAR 1920-1921

OFFICERS OF INSTRUCTION

THEODORE CHALON BURGESS, Ph. D., *President.*

A. B., Hamilton College, 1883; A. M., *ibid.*, 1886; Ph. D., University of Chicago, 1898; Bradley Institute since 1897.

CHARLES TRUMAN WYCKOFF, Ph. D., *Professor of History.*

A. B., Knox College, 1884; A. M., *ibid.*, 1887; Ph. D., University of Chicago, 1897; Bradley Institute since 1897.

CLARENCE ELMER COMSTOCK, A. M., *Professor of Mathematics.*

A. B., Knox College, 1883; A. M., *ibid.*, 1891; graduate study Johns Hopkins; University of Chicago; Bradley Institute since 1897.

WALES HARRISON PACKARD, Ph. D., *Professor of Biology.*

B. S., Olivet College, 1894; Ph. D., University of Chicago, 1908; Bradley Institute since 1898.

GEORGE CROMWELL ASHMAN, Ph. D., *Professor of Chemistry.*

B. S., Wabash College, 1895; M. S., University of Chicago, 1905; Ph. D., *ibid.*, 1908; Bradley Institute since 1902.

ALBERT FREDERICK SIEPERT, B. S., *Professor of Industrial Education.*

Graduate Bradley Institute, 1908; Stout Institute, 1910; B. S., Columbia University, 1913; graduate study Columbia University and University of Chicago; Bradley Institute since 1913.

VERNE FRANK SWAIM, Ph. D., *Professor of Physics.*

B. S., Earlham College, 1909; Ph. D., University of Chicago, 1914; Bradley Institute since 1913.

LEROY P. ELLIOTT, A. M., *Professor of Vocational Courses.*

A. B., University of Iowa, 1911; A. M., Columbia University, 1916; Bradley Institute since 1919.

GERALDINE SARAH HADLEY, A. M., *Professor of Home Economics.*

A. B., Earlham College, 1906; graduate Bradley Institute, 1913; A. M., Columbia University, 1920; Bradley Institute since 1920.

ETHEL HELEN LYONS, A. B., *Assistant Professor of Modern Language.*

A. B., Radcliffe College, 1907; Graduate study University of Berlin, Paris, Cornell University; Bradley Institute 1909-12, and since 1918.

EMIL A. JOHNSON, A. M., *Assistant Professor of Manual Arts.*

B. S., St. Olaf College, 1906; A. M., University of Minnesota, 1909; Graduate Stout Institute, 1913; Bradley Institute since 1913.

GEORGIA ETHELTON HOPPER, Ph. M., *Assistant Professor of Modern Language.*

A. B., University of Illinois, 1898; Ph. M., University of Chicago, 1904; Graduate study at the Sorbonne and at the University of Chicago; Bradley Institute since 1913.

MAJOR EARL WHARRY, B. S., *Assistant Professor of Mechanical Drawing.*

B. S. (Mechanical Engineering), University of Wisconsin, 1905; Bradley Institute since 1916.

CECIL MELNOTT HEWITT, B. M. E., *Assistant Professor of Automobile.*

B. M. E., Iowa State College, 1909; Bradley Institute since 1917.

JENNIE M. CONSTANCE, M. A., *Assistant Professor of English.*

Ph. B., Hamline University, 1909; M. A., Columbia University, 1917; Bradley Institute since 1919.

MARY GERTRUDE HARVEY, B. S., *Assistant Professor of Chemistry. (Fall).*

B. S., Northwestern University, 1912; Graduate study University of Chicago; Bradley Institute since 1917.

JOSEPH V. HANNA, A. M., *Assistant Professor of Education.*

Ph. B., University of Chicago, 1919; A. M., *ibid.*, 1920; Bradley Institute since 1920.

CLARENCE WESLEY SCHROEDER, A. M., *Assistant Professor of Political Science and Sociology.*

A. B., Southwestern College, 1913; A. M., University of Kansas, 1914; Bradley Institute since 1920.

LOYAL GARIS TILLOTSON, Ph. B., *Assistant Professor of Business Administration.*

Ph. B. (School of Commerce and Administration) University of Chicago, 1914; Graduate study Northwestern University; Bradley Institute since 1920.

MYRTLE DEWEY FRANCIS, *Assistant Professor of Home Economics.*

Graduate Bradley Institute, 1907; Graduate study University of Chicago and Columbia University; Bradley Institute since 1920.

ALFRED JAMES ROBERTSON, A. B., *Assistant Professor of Physical Education.*

A. B., University of Montana, 1916; Bradley Institute since 1920.

LILLIAN MELL GUINN, Ph. B., *Librarian.*

Ph. B., Cornell College, 1908; Library School, University of Illinois; Bradley Institute since 1916.

SARAH ELSIE POTTER, *Manager Laura Cottage and the Cafeteria.*

Graduate Bradley Institute, 1913; Student Teachers College; Bradley Institute since 1919.

ANNA JEWETT LE FEVRE, *Recorder.*

Secretary to the Dean, School of Education, University of Chicago, 1902-1912; Bradley Institute since 1912.

ADELAIDE MICKEL, *Instructor in Drawing.*

Graduate Chicago Art Institute, 1900; Student School of Education, Chicago, and Harvard University, summers; Bradley Institute since 1901.

HARRY HURFF, *Instructor in Woodworking.*

Student Bradley Institute 1897-9; Bradley Institute since 1912.

LENA MAY BUCKEY, A. B., *Instructor in Latin.*

A. B., Ohio Wesleyan, 1909; Bradley Institute since 1917.

W. ROSS MARVIN, A. B., *Instructor in English.*

A. B., Oberlin, 1917; Bradley Institute since 1919.

JOSEPH SOMLYO, B. S., *Instructor in Freehand and Architectural Drawing.*

B. S., Armour Institute, 1919; Bradley Institute since 1919.

MARTHA B. HOBSON, A. M., *Instructor in English.*

A. B., Bryn Mawr, 1914; A. M., University of Chicago, 1918; Bradley Institute since 1920.

LOIS RUTH INGLIS, A. B., *Instructor in Modern Language.*

A. B., University of Michigan, 1920; Student Paris, Brussels, Berlin; Graduate study, University of Michigan; two years residence in Porto Rico; Bradley since 1920.

JACOB ROY BENDER, M. S., *Instructor in Mathematics.*

A. B., Ohio University, 1916; M. S., University of Washington, 1918; Bradley Institute since 1920.

LUELLA KNIGHT, Ph. B., *Instructor in Household Arts.*

Ph. B., University of Chicago, 1917; Graduate Study, Summer, University of Wisconsin; Bradley Institute since 1920.

LEATA A. JONES, B. S., *Instructor in Household Science.*

B. S., Columbia University, 1920; Bradley Institute since 1920.

ERIC GEORGE SHALKHAUSER, A. B., *Instructor in Physics.*

A. B., University of Wisconsin, 1918; Graduate study, *ibid.*, Bradley Institute since 1920.

PAULINE BUSWELL, A. B., *Instructor in Physical Training.*

A. B., Oberlin College, 1920; Bradley Institute since 1920.

PHILIP BECKER, JR., *Instructor in Metalworking.*

Graduate Bradley Institute, 1918; Bradley Institute since 1918.

WILLIAM EDWIN ALLEY, *Instructor in Machine Shop.*

Student University of Illinois, 1900-1903; Bradley Institute since 1920.

ASA CARTER, *Instructor in the Automobile.*

Bradley Institute since 1920.

JAMES EDWARD MCMEEN, *Instructor in Electricity. (Part time).*

Student Wabash College; Bradley Institute since 1918.

CHARLES B. STEELE, *Instructor in Tractor. (Winter).*

Bradley Institute since 1919.

GEORGE WASHINGTON BRICKNER, *Instructor in Vulcanizing. (Winter and Spring).*

Bradley Institute since 1919.

CLARENCE L. A. WYND, *Laboratory Assistant in Chemistry. (Winter and Spring).*

Graduate Bradley Institute, 1920; Student University of Illinois.

MERTON LEONARD FULLER, M. Di., A. M., *Lecturer in Meteorology.*

M. Di., Iowa State Teachers' College, 1898; A. M., St. Lawrence University, 1907.

OFFICERS OF ADMINISTRATION

THEODORE C. BURGESS	President
CLARENCE E. COMSTOCK	Secretary of the Faculty
ANNA JEWETT LEFEVRE	Recorder
FRANKLIN STEAD	Director of Conservatory of Music
ALBERT F. SIEPERT	Superintendent of Summer School
LEROY P. ELLIOTT	Superintendent of Evening School
ETHEL H. LYONS	Dean of Women
CHARLES T. WYCKOFF	Dean of Men
ALLEN T. WESTLAKE	Dean of Horology
ALBERT F. SIEPERT	Dean of Teacher Training
GERALDINE S. HADLEY	Dean of Home Economics
LEROY P. ELLIOTT	Dean of Vocational Courses
GEORGE C. ASHMAN	Dean of Science Division
ETHEL H. LYONS	Dean of Literature Division
EMMA T. SCHMIDT	Secretary to the President
VIRGINIA ARMFIELD	Manual Arts Office
GEORGE R. MACCLYMENT	Business Manager
CLARA E. COMSTOCK	Secretary to Business Manager
J. L. CADWALLADER	Cashier
HOMER M. BOTTS	Superintendent of Power
S. D. LYMAN	Superintendent of Grounds and Buildings
WILLIAM E. KRIEGER	Assistant to Business Manager
CYRUS M. AVERY	Purchasing Agent
HATTIE E. POTTER	Bookkeeper

DIVISIONS OF THE INSTITUTE

The work of the Institute may be grouped under seven main divisions which are described briefly below.

- 1—THE COLLEGE.
- 2—THE ACADEMY.
- 3—VOCATIONAL OR TRADE COURSES.
- 4—THE CONSERVATORY OF MUSIC.
- 5—THE HOROLOGICAL DEPARTMENT.
- 6—EVENING CLASSES.
- 7—SUMMER SCHOOL.

I. THE COLLEGE

ADMISSION. Students wishing to enter for regular college work should present at least 15 units of high school credit. Three units are required in English, two in Mathematics and one in Science. The remaining nine units are elective but should be from the list approved by the University of Illinois and other standard colleges.

An official list of high school credits should be sent to the Institute as soon as possible after graduation. The catalog contains a blank which may be used for this purpose (after page 72), or one may be obtained by addressing the Institute.

Special students may be admitted to those classes for which they are prepared.

For admission to Vocational Courses, see page 12.

ADVANCED STANDING. Applications for admission to advanced standing in college must meet the requirements for entrance and be accompanied by an official record of the college work taken elsewhere. A letter of dismissal should also be sent.

REQUIREMENTS FOR GRADUATION—DEGREES. The College confers two degrees: Bachelor of Arts, Bachelor of Science. A candidate for either of these degrees must complete successfully at least 120 semester hours. Fifteen semester hours is the minimum assignment for a college student taking full work. Residence for at least two semesters, or its equivalent in summer sessions, is required.

To insure a well balanced course and at least a slight acquaintance with certain fundamental lines of study, the following distribution requirements are made of all candidates for a degree. Hygiene and Physical Training may not be counted toward the 120 semester hours:

- 1—History, 6 semester hours.
- 2—English, 6 semester hours.
- 3—Science, 6 semester hours.
- 4—Sociology, 3 semester hours.
- 5—Psychology, 3 semester hours.
- 6—Public Speaking, 2 semester hours.
- 7—Hygiene, 1 semester hour.
- 8—Physical Training, 4 semester hours.

In addition to the above, candidates for the degree of A. B. must present four years of Foreign Language (in high school or college) of

which at least one year must be taken in the college, and two years must be in the same language.

Not more than twenty hours will be accepted toward the A. B. degree from (1) Drawing and Design, (2) Music, (3) Home Economics, (4) Business Administration, and the total combined credit from these departments must not exceed thirty hours. The maximum combined credit allowed for any one year is ten semester hours.

College students at Bradley have the privilege of taking work for credit in the Conservatory of Music. Credit in music not to exceed 20 semester hours is allowed toward the A. B. degree. Not more than 8 may be allowed for practical music and then only when one and one-half times as much credit has been secured in theoretical music.

Members of Bradley Chorus or Glee Clubs who complete the work satisfactorily in any year may upon recommendation of the Musical Director receive one semester hour credit. This may not be included in the 120 semester hours required for a degree.

GROUPS. The courses of study offered in the college division of the Institute are classified into six groups. To guard against scattering and lack of continuity, every candidate for graduation must complete in addition to the distribution requirements stated above, 30 semester hours in one of the following groups.

- 1—Language, Literature, Art.
- 2—History, Economics, Political Science, Sociology.
- 3—Mathematics, Science.
- 4—Home Economics (Includes Teacher Training courses) see page 33.
- 5—Manual Training (Includes Teacher Training courses) see page 39.
- 6—Business Administration and Economics.

The A. B. degree is given to those whose work lies chiefly in groups 1, 2 or 3.

The B. S. degree is given to those whose work lies chiefly in groups 4, 5 or 6.

A certificate is granted to those who complete a two-year course for teachers of Home Economics, or Industrial Arts.

An appropriate certificate is given to those who complete any one of the vocational courses, and to those attending summer school or evening classes.

GRADES. Grades in each subject are shown by letters, A indicating high distinction, and D, the lowest passing grade. Each grade carries with it certain grade points. In order to graduate each student must average for his course at least 2.5 grade points, a total of 300.

TRAINING FOR CHARACTER. It is the constant aim to develop self-reliance and character in every student. Strict attention to work and courteous, honorable conduct is expected. The Institute is distinctly Christian and strictly non-sectarian. A Chapel Service is a regular part of the school work. It is designed to afford an opportunity for ethical

instruction and to assist in promoting unity in the Institute. Musical programs and addresses by prominent professional and business men on practical topics are sometimes presented at this service.

II. THE ACADEMY

Beginning with the fall of 1921, only the fourth year of academy work is offered. The various courses especially appropriate for academy students are so specified and come first in the department statements which begin on page 23.

III. VOCATIONAL OR TRADE COURSES

THE VOCATIONAL OR TRADE COURSES are designed primarily to meet the demand made by men who expect to enter immediate industrial employment. The endeavor is made to give the essential elementary training in the shop work, drawing, and mathematics which is necessary for the man who expects to understand his trade. As the time for completion of this work is in most cases limited, the work is confined to the practical. No attempt is made to introduce the cultural elements. Special circulars describing these trade courses may be had upon application. The following courses are offered:

(1) *Machine Drafting*. This work is intended as a foundation for a man expecting to enter directly into drafting or designing. The work is given in drafting and in the trade subjects with which drafting has to deal.

(2) *Architectural Drafting*. An attempt is made to give the necessary shop experience along with training in drafting to allow the student to enter the architectural drawing room upon completion of the course.

(3) *Woodworking*. The course for woodworkers includes the elements of house carpentry, millwork, cabinetmaking and use of woodworking machinery.

(4) *Machine Shop Practice*. Along with extensive practice in the machine shop, work is given in the allied subjects of drafting, forging, patternmaking, and shop mathematics.

(5) *The Automobile*. An all around training, fitting for positions in the manufacture, repair, sale and running of automobiles; includes Automobile Mechanism, Vulcanizing, Brazing, Soldering and Radiator Work, Automobile Engines, and Electricity as applied to the Automobile, Machine Shop Practice and Garage experience. The automobile work occupies two buildings of its own.

(6) *Practical Electricity*. Preparing for positions in House Wiring, Telephone Work, Installing and Running Electrical Machinery, Practical Testing and Electrical Manufacturing, General Principles and Laboratory work in Electricity, study of Motors and Generators, Wiring, Armature Winding, Machine Shop work, Shop Mathematics, Practical Experience in construction work and testing.

(7) *Tractor.* A short course in tractor work is given in the Winter months. This is especially suited to the needs of farmers, also garage men. Students may enter for four, eight or twelve weeks, according to individual preference. Superior equipment and teaching force. The tractor work occupies a separate building. The Institute owns a number of tractors of various types and has the hearty co-operation of tractor firms in the city who freely loan machines. This gives a knowledge at first hand of the leading makes. Peoria is the Tractor Center of the United States and students have the privilege of visiting the factories.

(8) *Horological Department.* This department gives practical instruction in Watchwork, Engraving, Jewelry and Optics. It is open throughout the year, and students can enter at any time. Catalogue will be sent upon request.

It is intended that the Vocational courses should be particularly for the use of students who have a definite trade objective in view. The large majority of students entering this work have definitely made up their mind as to the trade they expect to follow and the class of work is so arranged that they may receive the training which will best fit them in the shortest possible time for that occupation. A record of the attendance and grades is kept by the school and furnishes a basis for recommendation to any prospective employer that the student may have.

Special Bulletins have been prepared for these Vocational Courses. Send for one or more of them. A class schedule will be found on page 42.

IV. THE CONSERVATORY OF MUSIC

(See page 59 and Special Catalogue)

V. THE HOROLOGICAL DEPARTMENT

(See page 61 and separate catalogue)

VI. EVENING CLASSES

The evening Classes give instruction in practical work and are intended especially for workers in shops and factories who cannot take advantage of day schools. The classes are in session from October to May, meeting on two evenings each week. Special bulletins are issued early in September.

The following courses are usually given, new courses may be offered to meet the demand:

Woodworking and Patternmaking, Machine Shop, Mechanical and Machine Drawing, Blue Print Reading, Art Metal, Jewelry, Engraving, Architectural Drafting, Chemistry, Cooking, Sewing, Study of the Automobile (Electricity, Gas Engines, Batteries), Landscape, Gardening, Forging, Furniture Making, Freehand Drawing, Practical Electricity, Shop Mathematics, Accounting.

VII. SUMMER SCHOOL

The Summer School for 1921 will offer a great variety of courses in Manual Training, Home Economics, general college courses, and also work especially intended for teachers in the grades or in rural schools. Send for special bulletin. Summer credits may be applied toward a degree.

TRAINING FOR BUSINESS AND PROFESSIONS

Students who wish to plan their college work with a view to some special occupation should note the following suggestions:

1—BUSINESS ADMINISTRATION. A thorough course of college rank is given, covering lines helpful to one expecting to enter business or some position in the commercial world. Courses are offered in such subjects as Accounting, Economics, Salesmanship, Business Law, and the like. (See Department statement, page 25).

2—ENGINEERING. The Freshman and Sophomore years are given in the most thorough manner. Those who complete this work receive two years credit at the best engineering schools. The equipment for engineering work at Bradley is very complete and the teaching force unusually strong. The following are suggested programs:

CURRICULUM IN ELECTRICAL OR MECHANICAL ENGINEERING

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
Mechanical Drawing	4	Descriptive Geometry	4
Chemistry 11	4	Chemistry 12	4
English 11	3	English 12	3
Mathematics 11	4	Mathematics 12	4
Physical Training	2	Physical Training	2

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
Pattern Shop 15	3	Forge 16	5
Physics 21,	5	Physics 22	5
Mathematics 21	5	Mathematics 22	5
Language	3	Language	3
Physical Training	2	Analytic Mechanics 26	5
		Physical Training	2

By consultation with the Dean, slight changes may be made in this curriculum to meet the needs of those interested in other divisions of Engineering, e.g., Chemical, Ceramic, Civil, General Physics, etc.

3—GENERAL CHEMISTRY. FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
Chemistry 11	4	Chemistry 12	4
English 11	3	English 12	3
Mathematics 11	4	Mathematics 12	4
Language	3	Language	3
Physical Training	2	Physical Training	2

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
Chemistry 21	5	Chemistry 22	5
Physics 21	5	Physics 22	5
Language	3	Language	3
Elective	3	Elective	3
Physical Training	2	Physical Training	2

4—PRE-MEDICAL COURSE. All the best medical schools now require two full years of general college training before students may enter a medical school. The courses called for by the Council on Medical Educa-

tion are as follows: Chemistry, 12 semester hours; Physics, 8 semester hours; Biology, 8 semester hours; English, 6 semester hours; other non-science subjects, 12 semester hours. Sixty semester hours in all are required.

Other subjects suggested are:

Modern Language	Mathematics
Advanced Botany or Zoology	Psychology
Economics	History
Additional Chemistry or English	Sociology
Latin, Greek, Drawing	Political Science.

This pre-medical work may be taken to the best advantage at Bradley.

5—PRE-LEGAL COURSES. Two years of general college work is required for entrance to the better law schools. No set curriculum is established but the following lines of work are appropriate and helpful: English, Modern Language, Latin, Public Speaking, Economics, American Government, Municipal Government, Introduction to Political Science, International Law, Sociology, various courses in History, Psychology.

6—TEACHING. Those who wish to teach in the grades or in high school may secure a State Teacher's certificate without examination by electing the necessary courses in the Department of Education.

Those interested in Manual Training and Home Economics will find detailed statements for their work on pages 33, 39.

The demand for teachers is far greater than the Institute can supply. Naturally no guarantee of a position can be given but the Institute authorities attempt to assist as effectively as possible in securing suitable positions.

7—AGRICULTURE. One year or more of the Science work and non-technical electives belonging to an Agricultural Course may be taken at Bradley Institute.

8—SOCIAL SERVICE. There is a wide range of possibilities for well trained men and women in the realm of social work. Opportunities here are constantly increasing. Executives and secretaries and other social workers are constantly being sought. As a basis for the necessary specialized training, a number of general courses are prerequisite. Among the courses recommended for those who desire to specialize in this field are English, Biology, Modern Language, Public Speaking, Social Mathematics, Psychology, History, Political Science, Economics and Sociology.

EQUIPMENT

The Science Laboratories are located in Bradley Hall. They are equipped with everything that is required for elementary or advanced college work.

BIOLOGY makes use of two large laboratories, one for Physiology and Bacteriology; the other for Zoology, Embryology, and Histology. The lecture room and an office adjoin. The equipment is complete and up-to-date.

CHEMISTRY occupies laboratories for elementary and advanced courses accommodating about 150 students. There is also a large lecture room; a balance room, chemical library and reading room; and two store rooms. Every facility is offered for effective work.

PHYSICS occupies three laboratories. It also has a large work shop. The department is equipped to give instruction in a great variety of courses,—(1) College work for general students and for engineers; (2) Physics as applied to the automobile, and (3) practical electricity. The apparatus is equal in extent and variety to that found in our large universities. Many new and very valuable instruments have been added during the past year.

HOME ECONOMICS has exclusive use of the third floor of Bradley Hall. The rooms are unusually pleasant in location and arrangement. For Domestic Science there is a very large lecture room with two cooking laboratories. One of these has a comparatively inexpensive form of equipment. The other is thoroughly complete and up-to-date, including a gas range for every two girls. There are also appropriate offices.

Sewing is provided with laboratories, office and fitting rooms. It is thoroughly equipped for elementary and advanced work in Clothing and also for Millinery and Textiles.

SHOPS AND DRAWING ROOMS are located on Bradley Avenue and occupy several large buildings especially adapted to their needs. Machine Shop, Sheet Metalwork, Forging, Foundry, Patternmaking, Millwork, the Automobile, the Tractor, Freehand, Architectural and Mechanical Drawing, all are appropriately housed and provided with complete equipment.

LIBRARY. The general library occupies rooms on the main floor of Bradley Hall and contains about fourteen thousand volumes to which the students have free access. It is primarily a reference library, and is supplemented by six department libraries, namely, Chemistry, Mathematics, Physics, Biology, Modern Language, and Home Economics, which are shelved adjacent to lecture rooms where they will be of the utmost service. Books belonging to other departments such as History, Manual Arts, English, etc., are housed in the general library. The books are classified by the Dewey decimal system and the author and title card catalogs render all books easily accessible. The library receives one hundred and twenty American and European periodicals. Many of these are bound each year; sets of Reader's Guide Index to periodicals make these files available. The Library is open daily from 8 a.m. to 5 p.m. except Saturday, when it is only open in the forenoon. It is also open certain evenings from 7 to 9 p.m.

Students and faculty of Bradley Institute have also free use of the Peoria Public Library. This Library contains 150,000 volumes, has an extensive periodical file, and excellent reference department, and is a depository of public documents.

THE GYMNASIUM BUILDING is constructed of Bedford stone with vitrified brick finish on the interior. It is located between the large Athletic fields. To the north lie the tennis courts and hockey field. On the south, an iron fence encloses the quarter-mile cinder track, two baseball diamonds, the football field, jumping and vaulting pits. The building is one of the largest and best equipped in the state. On the ground floor are to be found bowling alleys, pool tables, a swimming pool, showers, and lockers. On the second floor besides the necessary offices are the large gymnasium for men, with cork running bed, indoor bleachers, gymnasium for women, a club room, and a lecture room. Each gymnasium is fully equipped with apparatus. The third floor contains a large social hall with a fire-place at one end; a kitchen adjoins. The social hall is invaluable in the social life of the Institute.

MUSEUM. On the fourth floor of Bradley Hall is placed the museum containing the mounted birds, mammals, and other biological specimens, and the herbarium presented to the Institute by the Peoria Scientific Association. To this has been added collections of shells and corals, the gift of Peoria citizens, and a collection of insects from the University of Illinois. A herbarium was presented by Miss Heading of Peoria and the Institute was recently made the recipient of a fine collection of relics and curios gathered in the Philippines and Mexico by General John Green Ballance. Other valuable collections are soon to be placed at the Institute.

UNITED STATES WEATHER BUREAU. During the summer of 1904 the United States Government erected a Weather Bureau Station at the north end of the campus on a lot granted by the Institute. This is under charge of Merton L. Fuller. Daily bulletins and weather maps are sent out from the station. Special lectures are given by Mr. Fuller to Institute classes.

THE NEEDS OF THE INSTITUTE

Bradley Institute offers a great variety of courses. Many of these involve unusual expense for equipment and maintenance. The income received from its endowment has been used with noticeable wisdom and efficiency. The time has come when this income is wholly inadequate. Increase in endowment and the erection and equipment of new buildings are necessary if the Institute is to do the work which naturally devolves upon it. It cannot otherwise render to Peoria, its home city, to the state and to the country, the service which may properly be expected of it.

A few of the more pressing needs may be mentioned.

1. Additional Endowment—The promise of \$150,000 has been secured conditioned upon the raising of \$350,000 more. A much larger sum is needed to meet pressing needs. The income from the new endow-

ment would be used to round out and render still more effective the work already established, to increase teachers' salaries, and to add some new lines of work long needed.

2. A Dormitory for Women—This should be an attractive building, large enough to care for about 60. It should contain an infirmary. Plans were drawn for such a building several years ago but the Institute has no funds with which to erect it. A dormitory is a form of gift most attractive to a donor. It would also serve the Institute's greatest need in the way of buildings.

3. Since the founding of the Institute, the Library has been housed at the south end of Bradley Hall in space which was originally intended for class rooms. For years this arrangement has been inadequate. The recent increase in College work makes the situation much more acute. The space is needed for class rooms and the Library should have a home of its own—a substantial building, beautiful in architecture. It should contain the library, an art gallery, a museum. The Institute has already the large museum of the Peoria Scientific Association, the General Balance Collection, and various other valuable gifts. Several other collections are soon to be transferred. There should also be a permanent fund for purchase of library books.

4. A Building for the Conservatory of Music—The growth of the Conservatory has been rapid. It has already outgrown its quarters. It should have a new building specially designed for its uses.

5. A Dormitory for Men—This should include a Commons where Bradley students can find healthful meals at reasonable cost.

6. A bell tower with chimes to ring the hours would form a very useful and attractive feature of the Campus.

7. Ornamental Entrance Gates—The memorial gates forming an entrance to the Campus of some of our older institutions present one of the most attractive features. It is an appropriate memorial gift. The Institute grounds afford several excellent locations.

8. Scholarships—One of the great needs at Bradley is a series of scholarships to provide part or all of the tuition of worthy students who need help. Even a small gift of \$1,000, \$5,000, \$10,000, has its important value. The good which it does is immediate and tangible and is repeated each year indefinitely.

9. Similar to the above is a loan fund of a few thousand dollars. A student in need of temporary financial help would be allowed to borrow from the fund to repay at a fixed date after he has become established in earning power.

10. Endowment of Professorships or special lines of work, or hospital and medical care.

11. Teachers' Retiring Fund—A fund is needed to enable the Institute to take advantage of the Carnegie Annuity System, or to establish a special plan of its own.

FORM FOR BEQUEST

I hereby give, devise and bequeath to Bradley Polytechnic Institute, Peoria, Illinois, the sum of.....dollars.

If property other than money is willed the form should be changed to agree.

BOARD AND LODGING

LAURA COTTAGE, a dormitory for girls, faces the campus. It has rooming accommodations for twenty and affords an excellent home for women, especially planned for the younger students. All young women rooming outside Laura Cottage are expected to take their meals there unless individually excused by the Faculty Committee in charge. The dining room has a seating capacity of about seventy-five. A deposit of \$10.00 is required when a room is reserved; this amount will apply upon the bill of the second semester, or will be refunded if notification is given before August 1st if an applicant wishes to cancel her reservation. No student will be admitted for less than a full semester. The Institute reserves all rights in connection with the assignment of rooms and the termination of their occupancy.

ROOMS. All rooming arrangements must be approved by the Recorder. A list of suitable rooms is kept on file in the Recorder's Office.

ROOMS AND BOARD FOR MEN. The Institute also provides boarding accommodations for men. Rooms are to be obtained from the list in the Recorder's Office.

DRESS. The Institute disapproves of extravagant or elaborate dressing and asks the co-operation of parents in establishing a sentiment in favor of plain, simple and appropriate dress for school work and school functions.

EXPENSES

Tuition and all other fees are payable in advance at registration. The Institute reserves the right to increase these charges in case of failure to pay in advance. The charge for tuition is \$50.00 for each semester. Each student pays also each half year, a semester fee of \$5.00. This entitles him to a locker in the Gymnasium, instruction in Physical Training, the use of the Library, a ticket admitting him to all local athletic contests held under institution management.

There are also fees for certain shop and laboratory courses to cover the per capita cost of material used by students taking these courses.

Biology, each five-hour course, \$4.00. Two or three-hour courses, \$3.00. Chemistry, each course, \$5.00.

HOME ECONOMICS. Cooking, \$4.00; Preparation and Serving of meals, \$3.00; Food and Dietetics, Textiles, Millinery, each \$2.00; House Construction, Housewifery, Quantity Cooking, Household Administration, Advanced Nutrition, \$1.00 each.

PHYSICS. College courses, each \$2.00. Vocational courses, \$1.00 to \$3.00.

Shop courses, \$1.00 to \$3.00.

The Department statements, (pages 23 to 62) indicate after each course the fee, if any.

Text books and other supplies may be secured at the book store.

STUDENT EMPLOYMENT. No student possessed of energy and purpose need fail of an education for lack of funds. The Institute in connection with its regular work, furnishes a good many opportunities for students to earn money with which to meet a part or all of their tuition. Application for such work should be made early.

There are also frequent requests for student help in homes and business places. Those who wish places to work for room and board can usually be accommodated.

The Institute does everything possible to assist students who wish to find opportunities to earn money outside of school hours.

SCHOLARSHIPS

1. Two scholarships to the members of the class graduating from the Academy, awarded by the Faculty.

2. Two scholarships to the two graduates having the highest rank in each of the Peoria High Schools. These are now held by Gladys Clark, Hilda Pfander, Carmen Sankey and Robert Taylor.

3. The University of Chicago grants each year two scholarships to be awarded to the two members of the graduating class maintaining the highest standing in their college work. The scholarships are of the value of \$150.00 each.

4. BEN HUR SCHOLARSHIPS. Bradley Institute is one of the institutions which may be selected by those to whom Ben-Hur Scholarships are awarded. These scholarships were established by the Supreme Tribe of Ben-Hur, a fraternal beneficial society, in memory of David W. Gerard, the founder. They are worth \$500.00 a year and are given to members of the order strictly on merit after a competition in which class-room scholarship, school activities, social qualities and character are all considered. For further information write to Gilbert Howell, Secretary, Crawfordsville, Indiana.

PRIZE IN CHEMISTRY. The Scheele Memorial Medal. Awarded to the student who ranks highest in Chemistry. This prize is offered by Wm. V. Dufner, Ph. G., of Peoria, pharmacist, and is of solid gold, with a bas-relief of Carl Wilhelm Scheele, the illustrious Swedish apothecary and chemist (1742-1786). This is now held by Joseph P. Sparks.

PRIZE IN ORATORY. The University of Chicago Club of Peoria has established an oratorical contest, open to any college student at Bradley. The club furnishes two prizes—one of \$35.00, the other \$15.00. The finals are held during commencement week.

THE COUNCIL

THE COUNCIL consists of eight representatives from the student body and three from the Faculty.

Six of the students are elected from the College, two from the Academy, equally divided between young men and young women. The young man from the Senior class acts as President of the Council.

The Council has under its care, *The Tech*, *The Polyscope*, Literary Societies, Clubs and Organizations, in short, all student activities not controlled by the Athletic Board.

FACULTY

Theodore C. Burgess

Wales H. Packard, Secretary

Lena M. Buckey

COLLEGE

Russell Damon

Mildred Carley

Normand Hoerr

Marjorie Paul

Paul Tirmenstein

ACADEMY

Clifford Arnholt

Arleigh Strayer

ATHLETIC BOARDS

THE ATHLETIC BOARD. Athletics are under direct control of a board made up of five members of the faculty and five representatives elected from various divisions of the school, and one Alumni representative. Actions of the Board are subject to revision by the Faculty.

FACULTY

T. C. Burgess, *Chairman*
C. W. Schroeder

V. F. Swaim
A. J. Robertson

HOROLOGICAL

A. T. Westlake, Jr.

J. L. Jones

COLLEGE

Lloyd Wyatt

ACADEMY

Arleigh Strayer

ALUMNI

Edward Stock

GIRLS

Helen Pennewill

WOMEN'S ATHLETIC ASSOCIATION

PRESIDENT

Alma Vandenberg

SECRETARY

Catherine Dunn

TREASURER: Opal Kelly

CLASS REPRESENTATIVES

Hazel Ramsey
Helen Pennewill

Marjorie Paul
Henrietta Proctor

THE ENGLISH CLUB is designed to create greater interest in English Literature. A special theme is selected for each year. Its meetings are monthly.

Officers: President, Normand Hoerr; Vice-President, Josephine Cowell; Secretary-Treasurer, Louise Hoagland.

THE FRENCH CLUB supplements the work of the class room in various ways, especially in giving opportunity for conversational French. Its meetings are held once a month.

Officers: President, Edith Dorsey; Vice-President, Claude Davison; Secretary-Treasurer, Helena Leisy.

THE HISTORY CLUB meets twice a semester to discuss current events, especially those having bearing on political, economic and social questions.

Officers: President, Howard Kelly; Vice-President, Lee Eagleton; Secretary-Treasurer, Margaret Bush.

THE HOME ECONOMICS CLUB holds monthly meetings to promote the interests of the Home Economics students.

Officers: President, Gertrude Schoenheider; Vice-President, Averil Leadley; Secretary, Dorothy Woods; Treasurer, Litta Benes.

THE MATHEMATICS CLUB was organized in December, 1919, to promote greater interest in Mathematics. It meets the first Wednesday of each month.

Officers: President, Ralph Jilly; Vice-President, F. J. Nelson; Secretary-Treasurer, Ellis Bottigheimer.

PELLITE DESIDERIUM—"P. D. CLUB," is composed of girls whose homes are outside Peoria. Its name means "banish homesickness" and it meets for social purposes. One social activity for the benefit of the dormitory fund is sponsored each year.

Officers: President, Clarabelle Friedheim; Vice-President, Lois Swanson; Treasurer, Ruby Peck; Secretary, Emeline Morey.

DEBATING CLUB meets monthly to acquaint its members with debating and parliamentary law.

Officers: President, Karl Icenogle; Secretary-Treasurer, Russell Peters.

ARTS AND CRAFTS CLUB holds monthly meetings for educational and social purposes.

Officers: President, Ralph Johnson; Vice-President, Gertrude Flack; Secretary, Ruby Peck; Treasurer, Cecil Collins.

THE GLEE CLUBS, directed by Charles H. Keep of the Bradley Conservatory, give training in singing, and in the interpretation of the best music. "The Mikado" was presented at the Majestic Theatre in November, and the Glee Clubs appeared at the Madison Theatre March 17, 18, 19.

Officers: President, Russell Peters; Secretary, Lucia Hazzard; Treasurer, Clifford Arnholt.

THE TECH is a weekly newspaper conducted by an editor, business manager, and associates. The editor and business manager are elected by the Council and personally assume all financial responsibility.

Staff 1920-1921: Editor-in-Chief, Walter E. Campbell; Business Manager, Louis Triebel; Managing Editor, Burt M. Powell.

THE POLYSCOPE is an annual student publication containing the history of the school for the current year. The editor and business manager are elected by the Council and personally assume all financial responsibility.

Staff 1920-1921: Editor, Lois Hurlburt; Business Manager, Clarence Hershe.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION was organized in 1902, and the Young Women's Christian Association in 1904. Both organizations prove important aids in promoting the best interests of the school.

Officers of the Y. M. C. A.: President, Clifford Arnholt; Vice-President, George Zimmermann; Secretary-Treasurer, Lee Eagleton.

Officers of the Y. W. C. A.: President, Margaret Bush; Secretary, Emeline Morey; Treasurer, Dorothy Hayward.

THE ALUMNI ASSOCIATION for the present year has the following officers:

President, L. L. Simpson; Vice-President, Dorothy Johnson; Secretary, Ruth Gordon; Treasurer, Alvin Sommer.

DEPARTMENTS

As a rule, courses numbered 10 or below are vocational.

Those numbered from 11 to 20 are primarily for Freshmen; from 21 to 30 for Sophomores; and those above 30 for Juniors and Seniors.

As far as possible odd numbers are used for courses given in the first semester and even numbers for those given in the second semester.

When course numbers are connected by a dash, e.g., 11-12, it means that credit is not ordinarily given for the first semester only. The entire year must be completed to secure credit for either semester.

When a comma is placed between course numbers, e.g., 11, 12, it means that credit may be gained for either semester taken separately.

After each course in the department statements which follow, there is indicated the number of semester hours credit, the semester in which the course is usually given, and the fee, if any. The fee given is in each case for one semester.

The Institute reserves the right to withdraw any course which is not elected by at least three students.

ANCIENT LANGUAGE

PROFESSOR BURGESS, MISS BUCKEY

This department gives one course in the Academy (fourth year) and courses for College students. Frequent use is made of illustrative material, such as photographs and lantern slides. Constant emphasis is laid upon the contributions of the Ancient Languages, especially Latin, to modern life.

ACADEMY

4. Cicero.

Orations with prose composition, one unit.

COLLEGE

11, 12. Cicero and Vergil. Five hours each semester.

A course designed especially for College students who enter with only two years of Latin and who would welcome the opportunity to continue the subject. The authors studied are two of the world's greatest literary men.

13, 14. Cicero, Terence, Livy, Horace. Five hours each semester.

The following authors are read: Cicero, *De Senectute*; Terence, *Phormio*; Livy, Book I and Selections; Horace, *Odes*.

15, 16. Tacitus and Selections. Three hours each semester.

Tacitus' *Germania* and *Agricola* will be read and selections from Horace's *Satires* and Cicero's *Letters*. The reading may be varied to meet the needs of the class.

17-18. A Beginner's Course in Greek. Five hours each semester.

BIOLOGY

PROFESSOR PACKARD

The department aims to present both the practical and the important theoretical sides of Biology. The courses should meet the needs of the general student who wishes to secure the present day biological point of view, or to go into medical or related professional work.

11. Principles of Animal Biology. Five hours. First semester.

This course is designed to introduce the student to the fundamental principles and concepts in each of the major divisions of Biology. An introduction to the elementary facts of structure, physiology, embryology, genetics, classification, ecology and paleontology.

Laboratory study of typical invertebrate forms. Fee \$4.00.

12. Vertebrate Zoology and Comparative Anatomy.

Five hours. Second semester.

Principles of development, general structure and evolution of vertebrate animals. Comparative anatomy of systems of organs considered with regard to function and evolution.

Dissection of representative types. Fee \$4.00.

13. Heredity, Evolution and Genetics. Two hours. First semester.

A lecture course on the facts, theories and application of the science of genetics. A study of the history and principles of evolution and the theories which have been proposed to account for it.

14. Economic Ornithology. Two hours. Second semester.

A study of the bird's place in nature and its economic importance. Identification of the common birds of the vicinity, their seasonal distribution and food relations.

Two hours of field work each week under the personal direction of the instructor.

21. Human Physiology. Five hours. First semester.

The structure and functions of the human body and the processes by which its activities are maintained. Constant reference is made to the relation of these processes to the laws of health. Special attention is given to nutrition and other topics of interest to the student of household science. Fee \$4.00.

22. Bacteriology. Three hours. Second semester.

Introductory study of the bacteria yeasts and molds and their relation to fermentation, decay, and disease, including brief discussion of industrial and hygienic applications.

The laboratory work introduces general bacterial methods, preparation of culture, media and cultivation of bacteria, the bacterial examination of air, water, milk, etc. Fee \$3.00.

31. Histology. Three hours. First semester.

The structure of the elementary tissues of the animal body, followed by a systematic study of the structure of its organs. A practical course in simple methods of microscopic technic and ample opportunity for further preparation work. Fee \$3.00.

32. Embryology. Three hours. Second semester.

A study of the principles of vertebrate embryology based on the development of the chick and pig. Instruction given in the preparation of embryonic material for microscopic examination. Adequate attention is paid to human embryology. Fee \$3.00.

BUSINESS ADMINISTRATION AND ECONOMICS

ASSISTANT PROFESSOR TILLOTSON

The purpose of the Department of Business Administration and Economics is to give its students a well-rounded training in the principles underlying all lines of business. It aims to give the student a serviceable background for practical living and will be found particularly helpful to students who plan to become managers of commercial or manufacturing establishments. The courses are also commended to those students who have not yet chosen their vocation but seek knowledge most likely to be of value in their future work.

The following program represents in outline the subjects which the student should take during the first two years.

GENERAL BUSINESS CURRICULUM

FIRST YEAR

SEMESTER 1		SEMESTER 2	
Elem. Acct	3	Elem. Acct.	3
Econ. Resources	3	Econ. Hist. of the U. S.	3
English	3	English	3
Electives	6	Electives	6
Physical Training	2	Physical Training	2

SECOND YEAR

SEMESTER 1		SEMESTER 2	
Advanced Acct.	3	Advanced Acct.	3
Prin. of Economics	5	Money and Banking	3
Business Corres.	2	Electives	9
Electives	5		

BUSINESS LAW, SALESMANSHIP AND ADVERTISING are third and fourth year subjects and are offered at this time. Other advanced Business Subjects belonging in the curriculum in the Junior and Senior years are being planned and will be open to students as the demand for them arises.

ECONOMICS

11. Economic Resources. Three hours. First semester.

This course treats of the leading facts and principles of industrial and commercial geography. It includes a study of the products of industry, of commercial movements, trade routes, and commercial policy. Emphasis is laid upon the resources and trade of the United States.

Open to freshmen and sophomores.

12. Economic History of the United States.

Three hours. Second semester.

A general survey of the economic problems and forces that have shaped the course of American history. The aim is to give the student an opportunity to see economic forces at work and to understand better present conditions.

Open to freshmen and sophomores.

21. Principles of Economics. Five hours. First semester.

A course in the fundamental principles of the science of business. The topics covered include a detailed study of the laws of wealth, utility, value, prices, etc. The laws of distribution as affecting interest, wages, rent and profits. Other topics studied are exchange, money, banking, international trade, problems of labor, protection, free trade, socialism and taxation.

Prerequisite: Thirty hours of college work.

22. Money and Banking. Three hours. Second semester.

The purpose of this course is to make a critical study of the theory, qualities and functions of money; bimetalism, free silver, gold and limping standards and value of money. About two-thirds of the course is devoted to the study of banking and credit, types of banks and their functions, banking operations, domestic and foreign exchange, bank loans, investment, bills, drafts, notes and other instruments of credit. Some time is given to a thorough study of the Federal Banking System.

Prerequisite: Economics 21.

BUSINESS ADMINISTRATION

15-16. Elementary Accounting. Three hours each semester.

This course is an introduction to the study of Accounting and is adapted primarily to the demands of general business. The topics covered include, double entry bookkeeping with the books of account and business papers common to a mercantile business; classification of accounts; handling of sales, purchases and cash; controlling accounts; partnership and corporation accounts; the preparation of financial statements; the closing of books of original entry. Ample practice work is provided.

Students who present two units of bookkeeping for entrance should register in the second semester, Accounting 16.

25-26. Advanced Accounting. Three hours each semester.

Continuation of Accounting 15-16. This course is designed for students desiring a more thorough knowledge of accounting for general business purposes and for those who wish to prepare for the C. P. A.

examination. The solution of a large number of graded problems from actual practice and C. P. A. examinations constitutes an important part of the course.

Prerequisite Accounting 15-16.

29. Business Correspondence. Two hours. Second semester.

A course given primarily to familiarize the student with the best practices of modern business English. The various types of letters used in business, such as letters of inquiry, orders, complaints, adjustments, credits, sales, follow-up, collection and applications are analyzed. This is followed by practice work on the part of the student in the writing of the various types of letters.

Primarily for those having 30 hours of college credit.

31. Business Law. Three hours. First semester.

A course in the principles of law as applied to business. The student is taught the nature and importance of law, how laws are made, the operation of the courts, followed by a study of contracts, sales, negotiable instruments, agency, partnerships, corporations and other topics of business law.

Prerequisite: Sixty hours of college credit including Economics 21.

35. Salesmanship. Two hours. First semester.

The principles of salesmanship and their practical application. Policies and practice of sales organizations; wholesale, retail and specialty salesmanship; motives for buying; finding prospects and securing interviews; meeting objections; selection of talking points; closing the sale; cultivation of character and make-up of personality. Sales demonstration by students and practical talks by business men. Alternate years.

Prerequisite: Economics 21.

38. Advertising. Two hours. Second semester.

A course dealing with advertising as a direct selling force and as a factor in distribution. The subjects covered include English as related to advertising; advertising campaigns; analyses of mediums; commodities and markets; use of color and illustrations; preparation of copy and advertising displays. Students will be asked to write copy, design layouts and plan campaigns. Alternate years.

Prerequisite: Economics 21.

CHEMISTRY

PROFESSOR ASHMAN, ASSISTANT PROFESSOR HARVEY, MR. WYND.

The courses in chemistry meet the needs of three classes of students: those who take the subject as part of a general education; those who intend to study medicine or pursue Home Economics, and those who intend to take up chemistry as a profession. Emphasis is placed upon the close contact of chemistry with outside affairs.

Laboratory work begins after two weeks and occupies six to eight hours weekly for the remainder of the year. Throughout the course the

subject is treated in experimental lectures and recitations, particular attention being given to a clear, concise and definite exposition of the subject and to chemical calculations.

The laboratory work is designed to illustrate the principles studied in the lectures. Quantitative experiments are introduced sufficient to enable the student to understand more clearly the laws of chemical combination.

The department of Chemistry is thoroughly equipped with the best apparatus and supplies used in general and analytical chemistry. The department library is well supplied with carefully selected books and periodicals, and is kept up to date by the purchase of the more important new books as they appear.

COURSES

11-12. General Chemistry. Four hours each semester.

(a) Characteristics of chemical change, elements, compounds of oxygen, hydrogen, water, chlorine, hydrochloric acid, atomic theory, nitrogen and ammonia. Lectures and laboratory, six hours a week.

(b) A combination of the study of non-metallic elements, the halogens, sulphur and nitrogen groups, valence, solution and electrolysis. Lectures and laboratory, six hours a week.

(c) The chemistry of the metallic elements and their more important compounds. Preparation of a number of common salts and the identification of simple substances. No attempt is made to teach qualitative analysis, but at the end of the course the student should be able to identify any simple salt, and understand the separation of various groups and elements. Lectures and laboratory, six hours a week. Prerequisite: Physics 1, or its equivalent. Fee \$5.00 each semester.

21. Advanced General Chemistry and Qualitative Analysis.

Five hours. First semester.

The lectures and recitations on advanced general chemistry deal with the subjects as presented in Stieglitz Qualitative Analysis, Vol. 1; study of the theory of solution, electrolytic dissociation, hydrolytic dissociation, mass action and chemical equilibrium, two hours a week. In the laboratory, reactions of basic and acidic ions, analysis of mixtures, six hours a week. Fee \$5.00.

22. Quantitative Analysis. Five hours. Second semester.

Methods in gravimetric, volumetric and electrolytic determination. Lectures and laboratory, eight hours a week. Fee \$5.00.

23. Elementary Organic Chemistry. Four hours. First semester.

A systematic study of the hydrocarbons and their derivatives, including typical representatives of both the aliphatic and aromatic series. This course is intended to give special preparation for course 24, which follows it. Lectures and laboratory, six hours a week.

24. Chemistry of Foods. Four hours. Second semester.

Lectures and laboratory work in the examination and testing of food materials, including the quantitative determination of the food principles in some of the common, typical foods. Lectures and laboratory, six hours a week.

31. Advanced Quantitative Analysis. Five hours. First semester.

This course follows Course 22 and is a continuation of Volumetric and Gravimetric Analysis. Fee \$5.00.

32. Organic Chemistry. Five hours. Second semester.

A more comprehensive presentation of the subject than is given in Course 23. Fee \$5.00.

ENGLISH ACADEMY

ASSISTANT PROFESSOR CONSTANCE, MR. MARVIN, MISS HOBSON.

MISS BUSWELL (Part Time).

4x First semester. Credit: One-half unit.

This course includes the history of English literature from 1660 to the present time and a study of the chief works of the representative writers.

5x Second semester. Credit: One-half unit.

This course includes the history of American literature from the beginning to the present time, a study of the chief works of the representative writers, a review of rhetoric and grammar, and composition—oral and written. Prerequisite: English 4x.

COLLEGE

11-12. Rhetoric and Composition. Three hours each semester.

This course is a more advanced study of the principles of rhetoric with a careful consideration of the four forms of discourse. For Freshmen.

21-22. Exposition. Two hours each semester. (1922-23).

This is a course in practical exposition, stressing both structure and style; some attention is given to editorials and news writing; a study is made of the essay as a literary form. Prerequisite: English 11-12.

13-14. Public Speaking. Two hours each semester.

The first semester's work includes a practical course in tone production, articulation, and pronunciation. The second semester's work includes training in speech-writing and delivery, and the frequent presentation of original speeches. One semester's work is required for graduation.

15-16. Dramatic Interpretation. Two hours each semester.

This course includes the study of the technique and the interpretation of the drama. Prerequisite: English 11, 12 and 13 or 14.

23-24. Survey of English Literature. Three hours each semester.

This is a general course in English literature from the beginning to the end of the nineteenth century. No credit is given for only one semester's work. Prerequisite: English 11-12. Prerequisite to all courses in English literature.

25-26. American Literature. Three hours each semester.

This is a course in American literature from the beginning to the present time; representative works are studied and compared with English masterpieces; stress is laid upon the peculiar features of American life as revealed in American literature. No credit is given for only one semester's work. Prerequisite: One year of college work.

27-28. Narration. Two hours each semester. (1921-22).

This course includes the study of the short story as a literary form and practice in the writing of narration. Prerequisite: English 11-12.

29. Business Correspondence.

(See Business Administration 29).

31. Early English Drama. Three hours. First semester. (1922-23).

A study is made of the development of the English drama from the beginning to Marlowe. Prerequisite: English 23-24 and two years of college work.

32. Shakespeare. Three hours. Second semester. (1922-23).

A study is made of the development of Shakespeare's art as exemplified by his representative plays. Prerequisite: English 23-24 and two years of college work.

33-34. English Novel. Three hours each semester. (1922-23).

A study is made of the development of the English novel from the beginning to the present time. Prerequisite: English 23-24 and two years of college work.

35. Victorian Prose. Two hours. First semester.

Some attention is given to the principles of prose criticism; a study is made of the representative works of Carlyle, Ruskin and Arnold. Prerequisite: English 23, 24 and two years of college work.

36. Victorian Poetry. Two hours. Second semester.

Some attention is given to the technique of poetry; a study is made of the representative poems of Tennyson and Browning. Prerequisite: English 23-24 and two years of college work.

37-38. Modern Drama. Two hours each semester.

A study is made of Ibsen and of the chief contemporary dramatists. Prerequisite: English 23-24 and two years of college work.

41. Teaching of English Composition. Two hours. First semester.

This course is designed to prepare students to teach English composition in the upper grades and the secondary schools. Prerequisite: Three years of college work.

42. Teaching of English Literature. Two hours. Second semester.

This course is designed to prepare students to teach English literature in the upper grades and the secondary schools. Prerequisite: Three years of college work.

43-44. Chaucer. Two hours each semester.

This course includes some study of the development of the language and a detailed study of the chief works of Chaucer. Prerequisite: English 23-24 and three years of college work.

HISTORY, POLITICAL SCIENCE AND SOCIOLOGY

PROFESSOR WYCKOFF, ASSISTANT PROFESSOR SCHROEDER.

HISTORY**21, 22. Medieval and Early Modern History.**

Three hours each semester.

Following a rapid survey of the changes accompanying the Teutonic invasions, the course traces the development of European history from the reorganization of the Empire by Charles the Great to the 18th century. Required of students majoring in the Social Sciences.

23. Modern Europe. Five hours. First semester.

A study of European progress from the 18th century to the present time. Prerequisite: History 21, 22.

24. English History. Five hours. Second semester.

A general survey of the political, economic, and social development of the English people.

25, 26. European History. Three hours each semester.

A survey of modern times with some reference to the medieval background. Recommended only for those who desire the minimum history requirement for graduation. Also offered as a three-hour course in the Summer Session.

31, 32. History of the United States. Three hours each semester.

The course brings out the essential lines of development which have entered into the making of the American Nation.

35. The Renaissance. Two hours. First semester.

An intensive study of the Renaissance period in Europe. 12th to the 16th centuries.

42. Contemporary History. Two hours. Second semester.

A study of the recent history of the United States with special reference to present day problems and world relations.

43, 44. Teacher's Course. Two hours each semester.

Gives training in historical method and in organizing and presenting historical material. For students who expect to teach or to do graduate work in history. Not given in 1921-22.

12. Economic History of the United States.

Three hours. Second semester

See Economics 12.

POLITICAL SCIENCE

11-12. American Government. Two hours each semester.

A course designed to acquaint the student with the fundamentals of his government, both federal and local.

21. Municipal Government. Three hours. First semester.

This course deals with the details of American Municipal Administration. Application of the principles to the cities of the country is sought. Not given in 1921-22.

22. Comparative Government. Three hours. Second semester.

A study of the governments of several European nations with emphasis upon points of similarity and contrast with our own. Not given in 1921-22.

23-24. Introduction to Political Science. Two hours each semester.

This course deals with the philosophy which underlies the organization called the State. Points of emphasis are the origin, nature, functions and organization of the State.

25-26. International Law. Two hours each semester.

Some of the well established fundamentals in this rapidly changing field are studied.

SOCIOLOGY

21-22. Introduction to Sociology. Two hours each semester.

A course designed to acquaint the student with the general field, with special emphasis placed upon the relation of Sociology to the allied sciences. The relation of theory to the major social problems is also a point of emphasis.

23. Contemporary Society. Two hours. First semester.

A survey of the general social field with special reference to the problems of industry, the family, the school, the church, and racial characteristics.

24. Social Work. Two hours. Second semester.

A course designed especially for those who plan as a vocation some line of social activity. It will include a study of race, immigration, charities and correction. Methods of social case work will be studied and some application will be made to local conditions.

31. Social Evolution. Three hours. First semester.

A study of social theory and a consideration of the underlying principles of human relationship and their development. Not given in 1921-22.

32. The Family. Three hours. Second semester.

A history of family life leading to an examination of the position of the family in society today. Not given in 1921-22.

33. Social Psychology. Two hours. First semester.

A study of the group mind with special reference to communication, stimulation and response, and social control.

34. Eugenics. Two hours. Second semester.

A detailed study of the psycho-physical characteristics and predispositions. Prerequisites are Sociology 21, 22 and Biology 11.

35. Educational Sociology. Two hours. First semester.

Covering the broader field of education from the social viewpoint, including study of a number of institutions not formally educational. Not given in 1921-22.

36. Urban and Rural Sociology. Two hours. Second semester.

An examination of the problems peculiar to our cities as contrasted with those of rural districts, with an outline of a program for each. Not given in 1921-22.

37. Social Teachings of Jesus. One hour. First semester.

An application of Christian principles to the problems of the day.

HOME ECONOMICS

PROFESSOR HADLEY, ASSISTANT PROFESSOR FRANCIS, ASSISTANT
PROFESSOR POTTER, MISS JONES, MISS KNIGHT

Courses are planned to meet the needs of the following groups:

(a) Students who desire to teach Home Economics in elementary and secondary schools and in higher institutions of learning. (1) Four-year course leading to B. S. Degree and Diploma in Home Economics. (2) Two-year course—Certificate in Home Economics. (The first year's work is the same in both courses).

(b) Students who wish to enter the field of institution administration as student dietitians, directors of lunch rooms, cafeteria managers, dietitians in social settlements. Courses in sociology, economics, psychology and elements of accounting are required of this group.

(c) Students who desire general knowledge of the subject matter relating to the economic, scientific, and social problems of the home as a part of a liberal education.

NOTE: Students are strongly urged to take the four-year course, if possible, since a college degree is increasingly demanded of those wishing to teach Home Economics in High Schools.

Electives. Students are allowed a liberal choice of electives. In the third year they may specialize in Clothing and Textiles or Foods and Nutrition. Certain courses in Home Economics may be elected by young women in the A. B. group. See H. S. 21, 31, 32; and H. A. 21, 22, 23, 31; H. Ec. 14.

Students specializing in Textiles and Clothing are advised to elect:

H. A. 23 Needlework 3
H. A. 31 Costume Design 3
H. A. 34 Interior Dec. 2

H. A. 42 Dress Design and Modeling 3
H. A. 44 Millinery 3

Students specializing in Foods and Nutrition are advised to elect:

H. S. 33 Quantity Cookery 3
H. S. 34 Institution Organization 2

H. S. 41 Advanced Nutrition 3
H. S. 42 Practical Nursing 2

All students in Department may elect H. Ec. 13, 14.

Physics and Chemistry. If Physics is not presented at entrance at least a short course must be taken at the Institute. Chemistry 23 may be taken the Freshman year, if a year of elementary Chemistry, the equivalent of Institute courses 11 and 12, is offered at entrance.

Uniforms. Two white poplin or lawnsdale sheeting uniforms are required of students in cookery classes. Butterick pattern No. 2848. White wash skirts and waists may be worn.

Dormitory. For a statement in regard to Laura Cottage see page 19.

THE SUBJECT MATTER OF THE COURSE IN HOME ECONOMICS INCLUDES:

(a) *General and Cultural Subjects.* A knowledge, application, and appreciation of good English; courses in Art, Literature, History, Sociology, Economics.

(b) *Educational Subjects.* The necessary credits in education and psychology are required for teacher's certificate. Additional credits may be obtained by electing other courses in education.

(c) *Scientific Subjects.* Include Chemistry, Biology, Bacteriology, Physics and Sanitation.

(d) *Technical Subjects.* Include theory and practical work in clothing and food laboratories, work in student cafeteria, residence in practice house and practice teaching.

Practice Teaching. Opportunity is given for practice teaching in Bradley Hall to children of the upper grades. Classes in both sewing and cooking are organized and conducted by student teachers at a Social Center and the city Y. W. C. A. Observation in city schools is required.

Practice House. A seven-room practice house near the Institute furnishes a home for a group of students and two instructors. The house is a practical laboratory for courses in Home Management and Housewifery.

SUGGESTED CURRICULUM IN HOME ECONOMICS

A complete program for the four years' course is printed as likely to prove helpful to students in planning a thorough and comprehensive course. In consultation with the Dean it may be changed to suit the needs of any individual. Opportunity is given for specialization at the beginning of the third year. Students may choose electives in other departments according to their needs, with approval of the Registering Dean.

FOUR YEARS' COURSE

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
H. A. 11 Clothing and Textiles	3	H. A. 12 Clothing and Textiles II	3
H. S. 11 Foods	3	H. S. 12 Foods II	3
Chem. 11 (General) or	4	Chem. 12 or	
Chem. 23 (El. Organic)	3	Chem. 24 Chem. of Foods	4
Design 31	1½	Design 32	1½
English 11 (Rhet. and Comp.)	3	English 12 (Rhet. and English Comp.)	3
H. Ec. 13 Vocational	1	Psychology	3
Personal Hygiene		Physical Training	
Physical Training			

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
H. A. 21 Textiles	3	H. A. 22 Dressmaking I	3
H. A. 23 Needlework	2	H. S. 22 El. or Nutrition and Dietetics	3
H. S. 21 Housewifery and Laundering	2	Chem. 24 Chem. of Foods	3
Chem. 23 (El. Organic)	3	Bio. 22 (Bacteriology)	3
Bio. 21 (Physiology)	3	English 24 or 26	3
Economic Resources 11	3	English 14 Public Speaking	2
English 23 or 25	3	Physical Training	
Physical Training			

THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
H. A. 31 Costume Design	3	H. A. 32 Dressmaking II	3
H. S. 31 The House	2	H. A. 34 Interior Dec.	2
H. S. 33 Quantity Cookery	3	H. S. 32 Meals and Table Service	2
Sociology 21	2	H. S. 34 Institution Organization	2
History 21 or 31	3	Sociology 22	2
Electives		History 22 or 32	3
		Electives	

FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
H. Ec. 41 Methods of Teaching	3	H. A. 42 Dress Design and Modeling	2
H. S. 41 Adv. Nutrition	3	H. Ec. 14 Survey of H. Ec.	1
Ed. 13, Hist. of Ed.	2	H. A. 44 Millinery	3
H. S. 42 Home Nursing	2	H. S. 44 Home Mgt.	3
Practice Teaching		Ed. 14 Intro. of Teaching	2
Electives		Practice Teaching	
		Electives	

TWO YEAR COURSE—SECOND YEAR

(First year same in both courses)

FIRST SEMESTER		SECOND SEMESTER	
H. A. 21 Textile and Laundering	3	H. A. 22 Dressmaking I	3
H. A. 21 Housewifery	2	H. S. 22 El. of Nutrition and Dietetics	2
H. Ec. 41 Methods of Teaching H. Ec.	3	H. S. 44 Home Mgt.	3
Chem. 23	3	Ed. 15 Intro. to Study of Ed.	2
Bio. 21, Physiology	3	Chem. 24 Chem. of Foods	3
Ec. Res. 11	3	Bio. 22, Bacteriology	3
Practice Teaching		Practice Teaching	

HOUSEHOLD SCIENCE COURSES

11, 12. Foods I and II. Three hours each semester.

This course gives a general working knowledge of the principles involved in the preparation of foods; study of production, manufacture, choice, care, cost, and composition of common food materials, and their value in the diet. Development of skill in actual working processes. Lectures and laboratory. Prerequisite or parallel: Chem. 11-12. Fee \$3.00.

21. Housewifery and Laundering. Two hours. First semester.

The work in this course centers around the Practice House and includes a study of the modern household; systematic planning of daily routine; choice, care, cost of household furnishings; cleaning, repair, and renovation; labor-saving appliances, and general methods for household efficiency. Processes of laundering, removal of stains, etc. Lectures and laboratory. Fee \$1.00.

22. Elements of Nutrition and Dietetics. Three hours. First semester.

A study of the fundamental principles of human nutrition and their application to the practical problems in both health and disease. Dietaries are planned to meet varying conditions of food values. Lectures and laboratory. Prerequisite or parallel: Foods I and II, Chem. 11, 12; 23; Bio. 21, 22. Fee \$2.00.

31. The House. Two hours. Second semester.

This course includes a study of the development of the house; principles of planning and house construction. Intelligent interpretation of house plans made by architect; discussion of home sanitation. Open to all students.

32. Meals and Table Service. Two hours. Second semester.

This course includes the study of the planning, cooking and serving of breakfasts, luncheons, dinners, suppers, and informal teas. Emphasis placed on attractive meals at a limited cost. Prerequisite: Foods I and II. Lectures and laboratory. Fee \$2.00.

33. Quantity Cookery. Two hours. First semester.

This course includes practice in handling materials in large quantity; planning of menus to meet needs of cafeteria, lunch room, etc. Preparation and service of food in college cafeteria. Lectures and laboratory. Fee \$1.00.

34. Institution Organization. Two hours. Second semester.

A study of various systems of organization in institutions; principles of administration; office management; essential forms of business correspondence; principles of bookkeeping. Trips to hotels, hospitals, cafeterias, etc. Prerequisite: H. S. 33.

41. Advanced Nutrition. Three hours. First semester.

This course supplements the work in elementary nutrition and dietetics. Detailed study of diets for abnormal conditions. Assigned readings and discussion of topics in the field of food economics and nutrition. Lectures and laboratory. Prerequisite: Elements of Nutrition, Chem. 11, 12, 24; Biology 21, 22; Foods I and II. Fee \$2.00.

42. Home Nursing. Two hours. Second semester.

A study of the care of the sick in the home, proper clothing, baths. Practice in preparing foods for invalids. Care of young children and

elderly persons. Aid to injured. Lectures and laboratory. Prerequisite: Foods I and II or equivalent; Elements of Nutrition. Fee \$1.00.

44. Home Management. Three hours. Second semester.

Discussion of problems of modern household from practical standpoint; organization of the household; study of business methods in housekeeping; accounting and budgeting. Principles involved in buying. Practical problems in marketing, planning, cooking and serving meals, keeping accounts, laundry work for resident group in practice house. Fee \$1.00.

HOUSEHOLD ARTS COURSES

11, 12. Clothing and Textiles I and II. Three hours each semester.

The work is presented from the standpoint of the teacher in order that students may have methods of presenting classroom problems. Practical work consists in making simple undergarments and other problems for elementary and secondary schools. The principles of hand and machine sewing and the application of the fundamental stitches. Comparison of commercial and drafted patterns. Care and repair of clothing. Comparative study of cost and kinds of cotton materials. Identification and grading of textile materials. Study of cotton industry and fabrics.

21. Textiles. Three hours. First semester.

Study of production, properties, preparation, and treatment of various textile fibers. Spinning, weaving, and finishing. Physical and microscopical tests are made for identification of fibers. Tests for adulteration and durability. Analysis of weaves. Prerequisite: Chemistry 11, 12. Fee \$2.00.

22. Dressmaking I. Three hours. Second semester.

This course gives instruction in drafting and use of patterns with special reference to the needs of those who are to teach sewing. Variation and alteration of drafted and commercial patterns; the cutting, making, and finishing of waists, simple dresses, and a wool skirt. Suitability of material, design, and color. Clothing budgets. Fee \$1.00.

23. Art Needlework. Two hours. First semester.

Application of the principles of design to the decoration of garments and textile household articles. Lace and embroidery stitches. Students furnish own materials. Open to all students.

31. Costume Design. Three hours. First semester.

Art principles applied to individual differences in artistic costuming. Study of factors influencing costume designs. Development of ability to analyze individuals from the standpoint of costuming. Designing and selection of costumes expressing art principles and suitable to individual proportions, types, and coloring. Ideas expressed by sketching in pencil, ink, and water-color. Open to all students. Prerequisite: Design 31. Fee \$1.00.

32. Dressmaking II. Three hours. Second semester.

Further use of drafted and commercial patterns as adapted to more difficult problems with silk and wool fabrics; special emphasis on selection and purchasing of materials, fitting, and finishing. Detailed study of hygienic and economic aspects of clothing. Renovation problems. Fee \$1.00.

34. Interior Decoration. Two hours. Second semester.

Study of the relation of design principles to interior decoration; of period styles, their use in modern furnishing, of selection and purchase of standing finish, floor, wall, and ceiling coverings, fire places, hardware, draperies, and accessories. Course includes field trips to shops and artistically decorated homes. Laboratory work in sketching elevations of various types of rooms, showing color, arrangement of standing finish, openings, and furnishings; and estimating cost of furnishing such rooms. Prerequisite: H. S. 31.

42. Millinery. Three hours. Second semester.

Designing and modeling hats of various types in paper. Making wire, buckram, and rim net frames, covering with velvet, silk, straw, and lace. Making of bindings, cords, folds, flanges, etc. Renovating materials. Practice in making flowers and other forms of hat decorations. Linings. Fee \$2.00.

44. Dressmodeling and Designing. Three hours. Second semester.

This course includes dress designing and the use of dressmaking form. Padding and adjustment to individual form and figure. Practical work in making garments by modeling and draping on forms. Prerequisite: Costume Design and Dressmaking I. Fee \$1.00.

GENERAL COURSES

13. Survey of Home Economics. One hour. First semester.

A study of the development of education for women; history of the development of the home economics movement; biographies of pioneers of this movement; practical and educational purposes in teaching. Reports of assigned readings. Lectures.

14. Occupations for Young Women. One hour. Second semester.

Discussion of occupations for young women, with reference to training, advancement, remuneration. Presented with purpose of aiding young women in planning their courses of study for liberal education or specific training. Recommended for first year students. Open to all students.

41. Methods of Teaching Home Economics.

Three hours. First semester.

Types of teaching; methods of study; lesson plans; courses of study for elementary grades and high school; equipment for both sewing and cooking laboratories. Practice teaching extended through the year. Observation in city schools.

INDUSTRIAL TEACHER TRAINING AND VOCATIONAL COURSES

I. CURRICULA FOR THE PREPARATION OF TEACHERS AND SUPERVISORS

The Division of Industrial Teacher Training offers several four-year programs for teachers of shop work or drawing in Junior or Senior High Schools, and one program for Supervisors and Directors. These programs are arranged to enable a student to concentrate along certain lines in order to teach acceptably such technical subjects as woodworking, metalworking, drafting or automobile repair. The first year of work is alike for all students, and the subjects required are "finding courses" designed to serve as a basis for the selection of the field for later specialization. A core of general and professional studies runs through each of these programs so that the related science and mathematics as well as the specific professional courses in Education are included. The dominant idea is to give thorough technical training in *doing*, specific preparation for *teaching*, and an adequate background of Science, Mathematics, English, History and Sociology. To this end, prospective teachers are placed in the same shop classes with prospective workmen in the various vocations for which the Institute offers training. There is no difference in content made for the machinist, the draftsman or the teacher. The professional courses in Education are based upon a study of Psychology, and are made to bear directly upon the work the teacher is called upon to do. The more general courses in Science or Mathematics are identical with those carried by other students of college rank. The program designed for Supervisors and Directors is planned for those having (1) credit for two years of approved study in college or normal school, (2) actual teaching experience, and (3) personal fitness for administrative work.

The demand for graduates with four years of training is steadily increasing and far exceeds the supply. Prospective students are advised to plan for the completion of one of the above programs. For those finding it impossible to do this, a two-year program can be arranged by the substitution of courses in Education for certain of the technical and general subjects during the first and second year.

Men with trade experience meeting the requirement of teachers in federal and state aided vocational schools, may have a full year of study arranged for them with individual consideration of their professional needs as prospective teachers.

FOUR-YEAR PROGRAMS LEADING TO THE B. S. DEGREE

Program A. This curriculum is designed for the preparation of teachers who will be expected to teach both technical and general High School subjects. 136 semester hours are required for graduation, 46 of which consists of required technical work, 60 of general and professional, and 30 of electives. The electives are to be grouped so as to prepare for teaching effectively one or two high school subjects in addition to Manual Arts.

Program B. A curriculum giving considerable freedom of electives along technical lines, and designed for teachers in (a) Junior High Schools, (b) Agricultural High Schools, or (c) teachers of Automobile and Tractor Repair. In order to insure the necessary technical knowledge and skill this program requires 60 hours of general and professional subjects, and 76 hours of technical, 24 of which are specified and the balance electives selected according to the kind of position desired from Automobile and Tractor Repair, Architectural, Mechanical and Machine Drafting, Carpentry, Electricity, Freehand Drawing and Design, Forging, Sheet Metal and Machine Shop, or Woodworking.

Program C. For teachers desiring to specialize in drafting. 76 hours of required technical work and 60 general and professional subjects.

Program D. For teachers of woodworking in technical high schools and vocational schools. 76 hours of required technical and 60 general and professional subjects.

Program E. For teachers of metalworking with special emphasis upon machine shop practice. 76 hours of required technical and 60 general and professional subjects.

Program F. For Supervisors and Administrative Officers. Prerequisite for registration in this curriculum includes (1) 60 or more semester hours of approved credit in college or Normal School including both technical and general courses, (2) two years or more of successful experience in teaching industrial work, (3) general fitness for supervisory work. Opportunity is afforded for electives in technical, general and professional subjects.

FRESHMAN YEAR (ALIKE FOR A, B, C, D, AND E)

TECHNICAL		GENERAL	
M. Dr. 11-12 Mechanical Drawing	6	Eng. 11-12, Composition and Rhetoric	6
F. Dr. 11 Freehand Drawing	2	Math. 11, 12 Shop Mathematics	2
W. Wk. 11, 12 Wood Technology, Finishing	6		
M. Wk. 11, 15 General Metal Work Forging	6		
W. Wk. 13-14 Millwork	4		

GENERAL AND PROFESSIONAL SUBJECTS REQUIRED FOR A, B, C, D AND E DURING SOPHOMORE, JUNIOR AND SENIOR YEARS

History	6	Ed. 15 Introd. to the Study of Ed.	2
Math. 11-12, Mathematics	8	Ed. 13 History of Education	2
Science	6	Ed. 21-22 Psychology	4
Soc. 21-22 Sociology	4	Ed. 31 Teaching Mechanical Drawing	2
Public Speaking	2	Ed. 33 Teaching Woodworking	2
Physical Training	2 years	Ed. 39 Methods of Teaching Manual Arts	3
History 6		Ed. 41 History of Manual Arts	3
		Ed. 42 Equipments	2
		Ed. 43 Administration of Ind. Education	3
		Ed. 46 Vocational Guidance	3

REQUIRED TECHNICAL SUBJECTS AND ELECTIVES FOR A, B, C, D AND E DURING SOPHOMORE, JUNIOR AND SENIOR YEARS

Program A

M. Dr. 17 Architectural Drafting	3	W. Wk. 15 Patternmaking	4
M. Dr. 15 Machine Drafting	3	W. Wk. 26 Furniture Making	3
Des. 33 Theory of Design	3	General Electives	30
Des. 34 Interior Decoration	3		
Des. 38 Furniture Design	3		

Program B

TECHNICAL ELECTIVES, 52 SEMESTER HOURS

Program C

W. Wk. 14 Millwork	3	M. Dr. 17-18, 23-24 Arch. Drafting	16
W. Wk. 15 Patternmaking	4	M. Dr. 15-16, 20 Machine Drafting	10
W. Wk. 26 Furniture Making	3		
F. Dr. 13 Freehand Drawing	3		
Des. 33 Theory of Design	3		
Des. 38 Furniture Design	3		

Program D

M. Dr. 15 Machine Drafting	5	W. Wk. 21-22 Millwork	10
M. Dr. 17-18 Architectural Drafting	8	W. Wk. 26 Furniture Making	3
W. Wk. 13-14 Millwork	6	Des. 33 Theory of Design	3
W. Wk. 15-16 Patternmaking	8	Des. 34 Interior Decoration	3
W. Wk. 18 Carpentry	3	Des. 38 Furniture Design	3

Program E

W. Wk. 15-16 Patternmaking	8	M. Wk. 21, 22 Jigs, Fixtures, Millwright-	
M. Wk. 13 Sheet Metal 3	3	ing	6
M. Wk. 16 Adv. Forging	3	M. Dr. 15-16 Machine Drawing	8
M. Wk. 17-18 Machine Shop	10	Auto 11, 12 Mechanism and Engines	4
M. Wk. 19-20 Machine Shop	10		

Program F**FRESHMAN AND SOPHOMORE YEARS**

SIXTY OR MORE SEMESTER HOURS OF APPROVED COURSES IN MANUAL ARTS AND

GENERAL SUBJECTS

JUNIOR YEAR

REQUIRED		ELECTIVES	
Ed. 31 Teaching Mechanical Drawing	2	General Electives	9
Ed. 33 Teaching Woodworking	2	Technical Electives	9
Ed. 39 Teaching Manual Arts	3		
Ed. 41 History of Manual Arts	3		
Ed. 42 Equipments	2		
M. Dr. 25-26 History of Architecture	4		

SENIOR YEAR

Ed. 36 Supervision of Instruction	3	General Electives	11
Ed. 43 Administration of Public Education	3	Technical Electives	11
Ed. 44 Administration of Industrial		Thesis	
Education	3		
Ed. 46 Vocational Guidance	3		

Programs requiring less than four years leading to Certificate.

Program H

This program gives intensive training in shop work and drawing together with related academic and professional subjects. It is designed for teachers of Manual Arts in the grammar grades.

FIRST YEAR

M. Dr. 11-12 Mechanical Drawing	6	Eng. 11-12 Composition and Rhetoric	6
W. Wk. 11-12 Technology, finishing	6	Ed. 13 History of Education	2
F. Dr. 11 Freehand Drawing	2	Ed. 15 Introduction to Education	2
M. Wk. 14-15 Metalwork, forging	6	Ed. 21-22 Psychology	4

SECOND YEAR

Des. 33 Theory of Designing	3	Soc. 21-22 Sociology	4
Des. 34 Interior Decoration	3	Math. 5 Shop Mathematics	2
Des. 36 Bookbinding	2	Ed. 31 Teaching Mechanical Drawing	2
Des. 38 Furniture Design	3	Ed. 33 Teaching Woodworking	2
M. Dr. 17 Architectural Drafting	3	Ed. 39 Teaching Manual Arts	3
W. Wk. 26 Furniture Making	3	Ed. 41 History of Manual Arts	3

Program I

This program is planned for men with trade experience required of teachers in schools receiving state or federal aid. Each man is given individual consideration and emphasis is placed (1) upon how to analyze and organize the trade knowledge and skill he may have, and (2) how to teach others what he knows and can do.

VOCATIONAL OR TRADE COURSES

NOTE—The studies are followed by a course number used in the department statements pages 23 to 62; e.g., Electric Wiring, Ph. 5 described on page 59 and Machine Shop Practice, Metal 17 on page 51. This program shows the general arrangement of studies but is subject to such changes as may be required. For additional information read page 12.

PRACTICAL ELECTRICITY

FIRST SEMESTER	SECOND SEMESTER
Electric Wiring (Ph. 5)	Electrical Construction (Ph. 6)
Electricity and Magnetism (Ph. 4)	Electricity and Magnetism (Ph. 4)
Architectural Drawing (M. Dr. 5)	Mechanical Drawing (M. Dr. 6)
Electrical Mathematics (M. 6e)	Electrical Mathematics (M. 6e)
Machine Shop Practice (Metal 17)	Machine Shop Practice (Metal 17)

MACHINE DRAFTING

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
Mechanical Drawing (M. Dr. 1)	Machine Drawing (M. Dr. 16)
Machine Drawing (M. Dr. 15)	(Double period)
Shop Mathematics (M. 6d)	Shop Mathematics (M. 6d)
Machine Shop Practice (Metal 17)	Machine Shop Practice (Metal 18)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
Machine Drawing (M. Dr. 16)	Machine Design (M. Dr. 20)
Shop Mathematics (M. 8)	Shop Mathematics (M. 8)
Forging (Metal 15)	Pattern Making
Machine Shop (Metal 19)	Machine Shop (Metal 20)

ARCHITECTURAL DRAFTING

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
Architectural Drafting (M. Dr. 17)	Architectural Details (M. Dr. 18)
Mechanical Drawing (M. Dr. 1)	Freehand Drawing (2 Dr. 14)
Freehand Drawing (F. Dr. 11)	Carpentry (W. Wk. 18)
Wood Technology (W. Wk. 11)	Woodworking Machinery
Shop Mathematics (M. 6w)	Shop Mathematics (M. 6w)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
Architectural Perspective (M. Dr. 23)	Architectural Design (M. Dr. 24)
Freehand Drawing	Freehand Drawing
Design (Des. 33)	History of Architecture (M. Dr. 26)
History of Architecture	Interior Decoration (Des. 34)
Shop Mathematics (M. 8)	Shop Mathematics (M. 8)

MACHINE SHOP PRACTICE

FIRST YEAR

FIRST SEMESTER

Machine Shop Practice (Metal 17)
 Forging (optional) (Metal 15)
 Machine Drafting (M. Dr. 1)
 Shop Mathematics (M. 6m)

SECOND SEMESTER

Machine Shop Practice (Metal 18)
 Brazing (optional) (Metal 10)
 Machine Drafting (M. Dr. 15)
 Shop Mathematics (M. 6m)

SECOND YEAR

FIRST SEMESTER

Machine Shop Practice (Metal 19)
 (Double period)
 Machine Drafting (M. Dr. 16)
 Shop Mathematics (M. 8)

SECOND SEMESTER

Machine Shop Practice (Metal 20)
 Patternmaking (optional)
 Machine Drafting (M. Dr. 16)
 or Descriptive Geometry (M. Dr. 14)
 Shop Mathematics (M. 8)

WOODWORKING

FIRST SEMESTER

Pattern Making
 or Mech. Draw. (M. Dr. 1)
 Wood Technology
 Architectural Drawing (M. Dr. 17)
 Shop Mathematics (M. 6w)

SECOND SEMESTER

Carpentry (Wood)
 Woodworking Machinery
 Architectural Drawing (M. Dr. 18)
 Shop Mathematics (M. 6w)

AUTOMOBILE

FIRST SEMESTER

Automobile Mechanism (Auto 12)
 Engine Laboratory (Auto 13)
 Automobile Forge Shop (Metal 9)
 Automobile Drawing (M. Dr. 3)
 Automobile Physics (Ph. 2)
 Shop Mathematics
 Machine Shop Practice (Metal 8)

SECOND SEMESTER

Automobile Electricity (Auto 17)
 Engine and Tractor Laboratory
 Vulcanizing (Auto 15)
 Garage Practice (Auto 19)
 Soldering and Brazing (Metal 10)
 Automobile Physics (Ph. 2)
 Machine Shop Practice (Metal 8)

FARM TRACTOR—SHORT COURSE

JANUARY AND FEBRUARY

Tractor Construction and Mechanism
 Tractor Garage
 Tractor Ignition and Carburetion

MARCH

Forge Work
 Automobile and Tractor Garage
 Auto Electricity
 Machine Shop Practice

II. DEPARTMENT COURSES

AUTOMOBILE

ASSISTANT PROFESSOR HEWITT, MR. CARTER, MR. STEELE, MR. BRICKNER

This department offers a year's course in Automobile work. There is also in the Winter months a short farm tractor course. Besides the work listed below, special applied courses are given for Automobile students in machine shop, forging, physics and shop mathematics.

11. Mechanism. Five hours. First semester.

This course includes (a) assembly and disassembly of automobile parts to familiarize students with names, functions and relation of parts, such as axles, transmissions and motors. Lectures and laboratory work. Fee \$1.00.

12. Engine Laboratory. Five hours. Second semester.

A detailed study of engine principles, valve timing, fitting of rings, bearings, and complete disassembling and assembling of standard types of automobile and tractor engines. Lectures and laboratory. Fee \$1.00.

14. Vulcanizing. Three hours. Second semester.

This course includes (a) a study of the various tools and materials used in the commercial repair of casings and tubes, as well as the construction of various standard casings to guide in the repair of blowouts, rim cuts and retreading; (b) regular commercial repair shop work. Fee \$2.50.

16. Electricity. Five hours. Second semester.

This course includes (a) a study of ignition, lighting and starting wiring systems and their installation in several standard systems on cars; (b) repair of all kinds of ignition, lighting and starting systems with special stress laid on storage batteries. Fee \$1.50.

18. Garage. Seven hours. Second semester.

Shop practice in automobile repair and testing work in all its phases. Practical garage experience in overhauling and repairing cars. Fee 30 cents per semester hour.

6. Tractor.

This is a laboratory course, covering the operation, maintenance and repair of various types of tractors. It includes a detailed study of tractor engines, valve timing and location and remedy of troubles. Credit given by special arrangement. Fee \$2.50.

EDUCATION

PROFESSOR SIEPERT, ASSISTANT PROFESSOR HANNA

Courses offered in this department are intended for prospective teachers: (1) Manual Training, (2) Home Economics, (3) Academic subjects in grades or high schools.

11. General Psychology.

Three hours. First semester. Repeated second semester.

A course in psychology including a general survey of the physiological laws upon which the principles of psychology are based, together with a study of the chief phases of human behavior which are involved in the learning process. Text: Pillsbury: "Essentials of Psychology."

13. History of Education.

Two hours. First semester. Repeated second semester.

The aim of this course is to discover causes for, and to trace out important courses of educational development in the past as a basis for the study of present educational problems. Text: Graves: Students' History of Education.

15. Introduction to the Study of Education. Two hours. First semester.

This is a general survey course the aim of which is to give the student a general knowledge of educational problems, with an understanding of the principles and methods to be employed in meeting such problems. Text: Judd: "Introduction to the Scientific Study of Education."

21-22. Educational Psychology. Two hours each semester.

A course in psychology similar to Education 11, but more extensive in character, and given with special reference to the needs of teachers. Lectures, discussions and reference work. Text: Pillsbury: "Essentials of Psychology."

31. Teaching Mechanical Drawing. Two hours. First semester.

A course in methods of teaching drawing based upon an analysis of (a) the purpose to be attained, (b) the subject matter involved and (c) the type of student concerned. Lectures, discussions, reference reading, drafting room practice. Prerequisite: Mech. Drawing 11, 12, Ed. 21-22. Fee \$1.00.

32. Methods of Teaching in Elementary Schools.

Three hours. Second semester.

A course dealing with the subject-matter and methods of teaching the fundamental, elementary school subjects. Text: Kendall and Mirick: "How to Teach the Fundamental Subjects," supplemented by Freeman: "The Psychology of the Common Branches."

33. Methods of Teaching Woodworking. Two hours. First semester.

A comprehensive course in methods of teaching Woodworking. Students arrange demonstration material, give demonstrations, and prepare tracings for a course of study. Practice teaching and observation of classes in the Peoria Public Schools and Institute shops. Text: Griffith: "Correlated Courses." Fee \$1.50.

34. Methods of Teaching in High Schools.

Three hours. Second semester.

This course deals with the purposes, principles and methods of education as they apply to students in the High School. Text: Parker: "Methods of Teaching in High Schools."

36. Supervision of Instruction. Two hours. Second semester.

A course dealing with the principles of supervision. Students will visit assigned classes for observation and make reports. Courses of study will be examined, and schedules for teachers and pupils be planned. Text: Nutt: "The Supervision of Instruction."

38. Mental Tests and Measurements. Two hours. Second semester.

A course in the theory and technique of group and individual intelligence tests as a means of diagnosing difficulties, discovering special and superior aptitudes, and serving as an effective aid in the work of educational and vocational guidance. The course includes a history of the testing movement. Prerequisite: Ed. 11, or Ed. 21-22.

39. Teaching Manual Arts. Three hours. First semester.

In this course, (a) the principles of teaching are presented with special reference to the manual arts, (b) methods of teaching are considered, (c) and typical lessons observed and discussed. Lectures, discussions, reading, written work. Text: Griffith: "Teaching Manual Arts." Prerequisite: Education 11, or 21-22, 13 or 15. Fee \$1.00.

41. History of the Manual Arts in Education.

Three hours. First semester.

This course covers (a) a brief review of the educational theory and practice of Pestalozzi, Froebel and other educational reformers (b) educational handwork in European countries, (c) the development of manual training, art instruction and industrial education in the public schools of the United States, (d) present problems relating to the manual arts in both general and vocational education. Lectures, discussions, reading and written work. Prerequisite: Education 11, or 21-22, 13 or 15.

42. Equipments. Two hours. Second semester.

A study of the considerations affecting the selection, arrangement and installation of equipment including (a) needs of different types of schools (b) what to avoid or favor in equipments, (c) economic and engineering problems arising, (d) detail plans of installations to meet given conditions, (e) specifications for purchase and installation. Lectures, discussions, reading, written work and drafting. Prerequisite: Wood 11, Mechanical Drawing 11, 12, Education 41. Fee \$1.00.

43. Administration of Public Education. Three hours. First semester.

A study of the problems of administration with reference to city, state and federal organization. The nature and formation of boards of control, superintendents and principals will be considered, as well as the teaching staff, courses of study, pupils, results, costs, records, and reports. Recitation, reference reading, reports. Text: Cubberly: "Public School Administration."

44. Administration of Industrial Education.

Three hours. Second semester.

This course refers students to the manual arts in both general and vocational education. It is open to students of Senior college grade only. It covers (a) administration from the standpoint of democracy, (b) selection and organization of subject matter, (c) the school system, (d) equipment and supplies, (e) business details, (f) teachers, (g) supervision. Lectures, discussions, reference reading and written work.

46. Vocational Guidance. Three hours. Second semester.

A survey of the quantitative and qualitative aspects of junior employment problems, with a study of attempts of various private and public agencies to solve such problems. The organization and methods of the Junior Division of the U. S. Employment Service are made the subject of special study. Functions and methods of educational and vocational guidance and placement, including analysis of jobs and of inclina-

tions and abilities of students, are somewhat more fully dealt with. The purpose of this course is to give teachers, prospective teachers and vocational counselors a practical point of view with reference to prospective junior workers and a general knowledge of conditions under which such a large per cent of juniors work. Prerequisite: Ed. 11 or 21-22. Text: Reed: "Junior Wage Earners."

47. Thesis.

A non-credit requirement for all certificates and degrees granted to students in the Industrial Teacher-Training Division. Specifications concerning theses furnished on request. Fee \$1.00.

FREEHAND DRAWING AND DESIGN

MISS MICKEL, MR. SOMLYO

11. Principles of Representation. Two hours. First semester.

This course is designed to give training of special value to manual training instructors, and includes (a) type solids, (b) furniture, (c) memory drawing, (d) perspectives from working drawings, (e) pen-and-ink rendering, (f) blackboard drawing. Lectures, discussions, reference reading, written work. Fee \$1.00.

13-14. Elementary Drawing. Four to ten hours each semester.

A course in line drawing, light and shades, and antique drawing. Pencil, charcoal, pen-and-ink, and brush-and-ink are the mediums employed. A study of the principles of perspective and illumination. Lectures, reference reading and studio. Fee \$1.00 and upward.

16. Outdoor Sketching. Two hours. Second semester.

This course consists of pencil drawings of architectural and landscape subjects in light and shade. Also wash drawings in color. Prerequisite: An elementary course in Freehand Drawing. Fee \$1.00.

21-22. Advanced Drawing and Painting. Ten hours each semester.

Drawing and painting from life, draped and costumed models. Lectures and studio. In the second semester this course will include landscape sketching in black and white and in color. Prerequisite: F. Dr. 13-14. Fee \$1.00 and upward.

24. Commercial Art. Three hours. Second semester.

A study of the underlying principles and special mediums and methods of drawing and painting in the field of advertising. The course includes the principles of lettering, black-and-white work for newspaper or magazine, posters and other designs in color. Lectures and studio. Prerequisite: F. Dr. 13. Fee \$1.00.

25-26. General History of Art. Three hours each semester.

A comprehensive introduction to the subject covering the entire history of art, designed to give information about, and an appreciation of the Fine Arts. No previous study of the subject is required.

31. Design for Home Economics. Three hours. First semester.

This course for Home Economics students consists of problems in (a) theory of color, (b) theory of design. Problems in design centering upon needlework and household decorations. Instruction is given in tooled leather work. Prerequisite: Elementary courses in Freehand Drawing and Design. Fee \$1.00.

32. Costume Design. Three hours. Second semester.

This course is planned for teachers of upper grade and high school work. It presents the fundamental principles in the art of costume design. It discusses the relation of dress to the individual and suitability of materials. The technical work includes sufficient practice in drawing and color for the expression of ideas. Fee \$1.00.

33. Theory of Design. Three hours. First semester.

This course consists of problems in (a) theory of color, (b) theory of design, (c) applied design. Problems centering around woodwork, metalwork, and clay modeling, suitable for grammar grade and high school work. Instruction given in tooled leather work. Prerequisite: Freehand Drawing 11. Fee \$1.00 and upward.

34. Interior Decoration. Two hours. Second semester.

This course consists of problems in mechanical perspective, and interior decoration. Prerequisite: Design 33. Fee \$1.00.

36. Bookbinding and Claywork. Two hours. Second semester.

This course includes (a) bookbinding and (b) claywork. The problems given are such as may be used with profit in the elementary schools. Fee \$1.00.

38. Furniture Design. Three hours. Second semester.

This course gives experience in design with reference to woodworking projects such as may be made in school shops and affords opportunity for a study of period furniture as a basis for the design of modern furniture. Prerequisite: Mech. Draw., Woodwork 11, Des. 33. Text: Varum: Industrial Arts Design. Fee \$1.00.

MECHANICAL, ARCHITECTURAL AND MACHINE DRAWING

ASSISTANT PROFESSOR WHARRY, MR. SOMLYO

Drafting boards and T-square are furnished by the Institute. The student must supply all other equipment, a list of which will be furnished on request. The cost will be \$15.00 and up according to course taken. All equipment must have the approval of the department.

The fee for drawing courses is 25 cents per semester hour of enrollment, with a minimum charge of \$1.00.

Students desiring credit in any drawing course should present themselves at 1 p.m. of Tuesday preceding the opening of the first semester at which time an examination will be held to determine eligibility to advanced standing. They should also present their drawing plates for inspection, and a certificate from the school attended. Persons not complying with these three requirements in full may not expect credit.

1. Mechanical Drawing.

Two to five hours. First semester. Repeated second semester.

A vocational course for students with no drawing experience. Text: Bennett: "Problems in Mechanical Drawing"; also Berg & Kronquist: "Mechanical Drawing Problems."

3. Automobile Drawing. Three hours. First semester.

For automobile students. Sketching, blue-print reading and use of instruments in drawing parts of the automobile. This course is preparatory to motor construction in the machine shop. Text: Bailey: "Mechanical Drawing for Beginners."

5, 6. Electrical Drawing. Two hours each semester.

For students in vocational electricity. First semester, use of instruments and architectural details. Second semester, machine details and wiring diagrams. Text:

11, 12. Teacher Training Drawing. Three hours each semester.

For students intending to teach the Manual Arts. Freehand Lettering and Sketching, use of instruments, penciling and inking in geometrical construction and working drawings. Isometric, cabinet and orthographic projection, plane sections, intersections and developments. Emphasis on principles involved and good technique. Prerequisite: 3 S.H. of Mech. Dr. 1. Text: Tracy: "Mechanical Drawing."

13. General Engineering Drawing. Four hours. First semester.

For freshman engineers. Emphasis on orthographic projection and working drawings. Also isometric and cabinet projections, intersections and developments. Detailing from models, cuts and specifications. Prerequisite: 3 S. H. of Mech. Dr. 1 Text: French: "Engineering Drawing."

14. Descriptive Geometry. Four hours. Second semester.

Aims to develop the habit of analytic thinking by dealing with the practical relations of points, lines and planes, followed by a consideration of surfaces and solids and their relations to points, lines and planes and to each other. This involves intersections, developments, shades, shadows and perspective. Text: Miller, "Descriptive Geometry." Prerequisite: Plane and Solid Geometry and Mech. Dr. 13.

15, 16. Machine Drafting. Two to ten hours each semester.

A vocational course placing emphasis upon technique, speed and accuracy in the making of drawings in harmony with standard drafting room practice. This course is very flexible in the matter of actual problems undertaken in order to be adapted to the needs of individual students. The use of catalogue studies and technical references is encouraged to aid in practical drafting work in machine design, automobile motor design, and installation plans. Students may receive a special draftsman's certificate upon completion of the work in the Vocational Group and upon attainment of the required proficiency in drafting. Students registering for the first time should provide calipers and a 6-inch steel scale. Texts: G. E. D. Plate Specifications (University of Illinois); also French, "Engineering Drawing" and "Machinery's Handbook." Prerequisite: 3 hours of Mech. Dr. 1.

17. Architectural Drafting. Four hours. First semester.

Symbols and conventions, lettering, planning and designing of typical residences, including details of main features. Text: Seaman, "Progressive Steps in Architectural Drawing"; King, "Woodwork and Carpentry." Prerequisite: Three hours of Mech. Dr. 1.

18. Architectural Detail. Four hours. Second semester.

In this course typical details are given, covering all the standard forms of construction in frame, masonry, and fire-proof buildings. Special problems may be worked up to correlate with courses in house carpentry. Texts: Radford, "Details of Building Construction"; Martin, "Details of Building Construction"; Kidder, "Building Construction and Superintendency." Prerequisite: Mech. Dr. 17.

20. Machine Design. Five hours. Second semester.

This course includes making drawings of standard machine parts, making sketches and drawings from machines, and assembly drawings from working drawings, and instruction in the use of the slide rule. This is followed by a study of machine construction, including calculations for proportioning and designs of bolts, keys, journals, bearings, couplings, feed screws, gears and cams, with a study of tooth forms. The course aims to prepare students for further work in engineering schools. Each student should own a slide rule. Text: Leutwiler, "Machine Design." Prerequisite: 3 hours of Mech. Dr. 1; Woodwork 15; Metalwork 21, 22; and Physics, 14, 15, 17, 18.

23. Architectural Perspective. Four hours. First semester.

This course consists of a complete and thorough drill in both one and two point perspective and pen and ink rendering. Problems are given in the exterior perspective of houses. Shadows are cast and building and background are drawn and rendered in pen-and-ink. Text: Frederick, "Simplified Mechanical Perspective." Prerequisite: Mech. Dr. 17.

24. Advanced Architectural Drawing. Four hours. Second semester.

A course designed for students desiring a more complete knowledge of the fundamental principles of architectural design. A study of the elements of architecture, the classic orders and their application to such problems as libraries or bank buildings. Text: Vignola, "Orders of Architecture—Classic." Prerequisite: Mech. Dr. 17, 18, 23.

25-26. History of Architecture. Two hours each semester.

A course tracing the development of the art of building through the stages of evolution from primitive to modern times. Lectures, recitations and assigned library work. Text: Hamlin, "History of Architecture."

28. House Construction. Three hours. Second semester.

A course for Home Economics students including (a) lectures on planning with reference to convenience, cost, site, cellar, foundation, materials, framing, finish, plumbing, heating, lighting, furnishing, decoration; (b) planning a house to meet given conditions.

METAL WORKING

MR. ALLEY, MR. BECKER

7, 8. Auto Machine Shop. Two hours each semester.

This course is for students taking the automobile course. After elementary instruction in the use of the machines and equipment is completed, the making of parts in the repair of the automobile and the building of engines is taken up. The elementary portion of this course is similar to the elementary part of course 17. Fee \$3.00.

9. Auto Forging. Three hours. First semester.

A special course for automobile students giving the elements of forging and leading into the making of regular and special tools for use in garage work as well as the repairs for cars overhauled in the garage. Fee \$3.00.

10. Brazing and Soldering. Three hours. Second semester.

A course primarily for automobile students, although other students may enter the work. General work in the elements of brazing and soldering is given and practical application is made to radiator repair work for the automobile course. Some work with the oxy-acetylene torch for cutting and brazing light material is given. Fee 75c per semester hour.

11. Bench Metalwork. Three hours. First semester.

A course for prospective industrial teachers. The work covers problems in iron and steel which can be made without the regular machine shop equipment. The processes include filing, drilling, turning and polishing executed with hand tools on the bench or a speed lathe. The intent of the course is to give experience in light metalwork that may be used in the public school shop where no regular machine shop equipment is available. Fee \$1.00 per semester hour.

13. Sheet Metalwork. Two hours. First semester.

Drawing patterns for and making some tinsmithing problems in pipe joining, architectural and ornamental work and vessel construction. Fee \$1.00 per semester hour.

14. Foundry Practice. Two hours. Second semester.

This course gives a working knowledge of the processes of making molds, core making, and the care and use of a brass furnace. Fee \$2.00.

15. Forging. Three hours. First semester.

This course includes instruction in building and handling the forge fire; in the use of the hammer, anvil, tongs and the other tools of the forge shop; and the forging and welding of iron and steel. It also includes forging, hardening and tempering tools. Fee \$1.00 per semester hour.

16. Advanced Forging. Three hours. Second semester.

A course in the more difficult work involved in tool forging, welding, use of power hammer, and practical repair problems. Fee \$3.00.

17, 18. Machine Shop. Two to ten hours each semester.

This is a beginning course in general machine shop practice. Work at the bench will be given along with the general use of the machine equipment. So far as is practical, problems of an industrial nature are given for the student to work on. While the assignment of jobs may not be the same in all cases, an attempt is made during the year's work to have each student cover the essential processes that are used in machine shop practice. The instruction is in a large part of an individual nature, so that the needs of the individual student can be met. The work is arranged to fit men to become machinists and draftsmen as well as for the college student who desires credit in this work. Fee \$3.00.

19, 20. Machine Shop. Two to ten hours each semester.

This course is intended primarily for students who expect to be machinists or machine draftsmen. It is planned to familiarize the student thoroughly with the use of machine tools and machine construction and to give him more intimate knowledge of the work. So far as possible the responsibility of lay-out and construction is given to the student. Fee \$3.00.

21. Jigs and Fixtures. Five hours. First semester.

A specialized course in Machine Shop practice dealing with the production of articles by modern methods. Students will design, make and use necessary jigs and fixtures.

22. Millwrighting. Five hours. Second semester.

A study of layouts for machinery installation, including floor plans, pulleys, shafting and belting for typical machine shops. The practical work will consist of taking down and putting up shafting, relining a shaft, placing of pulleys and countershafts, and setting machines.

WOODWORKING

ASSISTANT PROFESSOR JOHNSON, MR. HURFF

11. Wood Technology. Three hours. First semester.

Fundamental woodworking processes, and the proper care and use of tools are taught. A study is made of the character of woods, tree identification and related materials used in woodworking. Text: Noyes, "Handwork in Wood." Fee \$2.00.

12. Wood Finishing and Upholstering. Three hours. Second semester.

(a) Instruction in the mechanical preparation of wood before staining, the preparation, use and application of stains, fillers and surface or finish coats such as wax, oil, shellac and varnish, including French polishing and rubbed varnishes. Wood samples and larger projects are finished. Fee \$2.00.

(b) In upholstery the making of plain and spring seats will be taught, including a study of webbing, burlap, springs, stuffing, and covers, also the use of reed in caning. Fee \$3.00 and up.

13, 14. Woodworking Machinery. Ten hours each semester.

In this course emphasis is placed on practical work with machinery. The shop is equipped with cut-off saw, four circular saws, band-saw, two jointers, two planers, hollow-chisel mortiser, boring machine, shaper, belt sander, tenoning machine, and glue facilities. The shop is organized as a producing factory with cost system. Instruction is given through demonstrations and practical work. Students are taught band-saw brazing, setting and filing, care of circular saw and practice in gumming, setting, swedging, jointing and filing. From two to six hours a day. Prerequisite: Wood, 11, 12. Fee \$3.00.

15. Elementary Patternmaking and Molding.

Three hours. First semester.

A beginning course giving the fundamentals of patternmaking. Patterns are made involving the following patternmakers' allowances: draft, finish, shrinkage, warp and shake. Emphasis is placed on proper procedure and accurate workmanship. A variety of patterns are molded. Fee \$2.00.

16. Advanced Patternmaking. Three hours. Second semester.

Patterns are made for the following kinds of castings: pipe fittings, pulleys, valves and gear wheels. Follow board mounts are made as well as special patterns required in the Machine Shop. Fee \$2.00.

18. Carpentry. Three hours. Second semester.

A course in planning, designing and erecting buildings such as garages, or small houses, including the making, in the mill-shop of doors, frames, sash and interior trim for the building to be erected. Emphasis will be placed upon (a) training in the use and care of carpentry tools, (b) saw filing and chisel grinding, (c) figuring board measure, and making estimates on labor and material, (d) methods of constructing frame buildings and applying interior trim, (e) names and methods of applying builders' hardware, (f) stairwork, (g) roof construction. Fee \$2.00.

21, 22. Woodworking Machinery. Ten hours each semester.

This is a continuation of Course 14. In this course students get some experience as foremen, and during the spring quarter are given work in methods of teaching woodworking in secondary and vocational schools. Prerequisite: Woodwork 13, 14. Fee \$3.00.

26. Furniture Making. Three hours. Second semester.

A study of furniture making emphasizing principles of good construction, involving processes and proportion of parts, including the application of paneling, inlaying and turning as decorative features. Students execute a design made in Woodwork Design. Prerequisite: Woodwork 11, 12. Fee \$3.00 and up.

28. Wood-Turning. Three hours. Second semester.

This course includes a study of the historical development of the lathe, thorough drill in the cutting action of turning tools and methods of holding them; projects in spindle, face plate, chuck and mandrel turning, finishing and polishing. Fee \$2.00.

LIBRARY METHODS

ASSISTANT PROFESSOR GUINN

The course in Library Methods is open only to those registered in the College Department. Its purpose is (a) to present library methods to the general student in such a way as to enable him to use with advantage any properly arranged library; (b) to assume the duties of an assistant to a librarian; (c) to prepare prospective teachers to organize and supervise high school libraries; (d) to aid in the better use of printed matter by presenting principles of selecting best books, magazines and printed matter for practical use for special lines of work and different types of libraries.

11. Library Science. Two hours. First semester.

History of Libraries and Book-Making. Selection of books. Problems in selecting and buying.

Library Economy. Ordering books, accessioning, classification, Cutter-Sanborn author table for author numbers, ordering and use of Library of Congress cards, cataloging, shelf list, Cutter rules for a dic-

tionary catalog, card catalog, mechanical preparation of book for use, shelving, loan administration, periodicals, the ordering, checking and binding; recasing, binding and mending of books, copyright laws.

Reference Works. Reference books studied in groups as hand-books for general information, statistics, quotations, encyclopaedias, dictionaries, etc., with practical problems on the books studied.

General Reference. Use of card catalog, periodicals, sources of library aids, Government publications.

Bibliography. Lectures and problems in the elements essential to an intelligent use of bibliographic aids in a modern library.

12. Library Course for Teachers. Two hours. Second semester.

Organization and administration of school libraries. An elementary course in library science planned to qualify students preparing for teaching, to undertake the supervision of high school libraries and to give instruction to high school students in the use of books and libraries. The course will include selection and buying of books, reference works, elementary classification, cataloging, library records, equipment, aids and allied subjects.

MATHEMATICS

PROFESSOR COMSTOCK, MR. BENDER, MISS BUCKEY (Part time)

This department provides for the needs of several classes of students. (1) Engineering students; (2) Students who wish to continue the study of Mathematics; (3) Students who intend to teach Mathematics in Secondary school; (4) Those whose main interests lie in other fields.

3x. Algebra. Four hours. First semester.

A preparatory course covering the topics of secondary Algebra.

10. Solid Geometry. Three hours. Second semester.

This course is given to accommodate students who do not present the subject for admission.

11, 12. Freshman Mathematics. Five hours each semester.

The course includes topics of College Algebra, Trigonometry, Analytic Geometry and a short introduction to Calculus. Open to students who present $1\frac{1}{2}$ units of Algebra for admission.

13, 14. Freshman Mathematics. Five hours each semester.

The same course as 11, 12 except that more time is given to certain topics of Elementary Algebra. Open to students who present one unit in Algebra for admission.

15. Socialized Mathematics. Three hours. First semester.

A course arranged for students who do not take 11, 12 or 13, 14, but who desire a better mathematical equipment for the study of the Social Sciences.

16. Outline Course. Three Hours. Second semester.

A course giving a simple treatment of topics of Algebra, Trigonometry, Geometry and Calculus. Open to those who do not wish to continue in Mathematics but who desire some knowledge of the methods and concepts of more advanced Mathematics.

- 21, 22. Differential and Integral Calculus.** Five hours each semester.
Open to students who have completed Courses 11, 12 or 13, 14.
- 26. Analytic Mechanics.** Three hours. Second semester.
Open to students who have had or are taking Course 21, 22.
- 28. Plane Surveying.** Three hours. Second semester.
Open to students who have had courses 11, 12; 13, 14 or 16.
- 31, 32. Differential Equations.** Three hours each semester.
Open to students who have completed Course 21, 22.
- 33. Fundamental Concepts.** Three hours. First semester.
This course discusses the fundamental concepts of Algebra and Geometry. It should be taken by all students who intend to teach Mathematics. Open to students who have completed Course 21, 22.
- 34. Projective Geometry.** Three hours. Second semester.
Open to students who have completed Course 21, 22.
- 35. Theory of Equations and Determinants.**
Two hours. First semester.
Open to students who have completed Course 21, 22.
- 36. History and Teaching of Mathematics.**
Two hours. Second semester.
Open to students who have completed Course 21, 22. Courses 11, 12 or 13, 14; 21, 22; 33, 34; 35, 36 should be taken by all students who plan to teach Mathematics in secondary schools.
- 41. Descriptive Astronomy.** Three hours. First semester.
Open to Juniors and Seniors who have completed Courses 11, 12 or 13, 14 or 15 or 16.

VOCATIONAL COURSES

Shop Mathematics. A practical course, covering the fundamentals of Arithmetic, Algebra, Geometry and Trigonometry. Attempt is made to apply these subjects as they are used in shop and laboratory practice of the various trades.

5a. Five hours. First semester.

For students specializing in Automobile work. Problems applying to automobile construction and operation are used as far as possible.

5d, 6d. Five hours each semester.

For Draftsmen, Machinists, etc. It embodies a study of actual processes for the use of formulas and problems that are found in the machine shop and the drafting room.

5e, 6e. Five hours each semester.

For students taking the Vocational Electrical course. The work covers the same general field of mathematics. The problems deal with electrical measurements, formulas and calculations.

MODERN LANGUAGE

ASSISTANT PROFESSOR LYONS, ASSISTANT PROFESSOR HOPPER
MISS INGLIS

FRENCH

ACADEMY

B. Grammar Review; composition; conversation; pronunciation. One unit. Reading of easy modern prose. Prerequisite: One year of high school French.

COLLEGE

11-12. Beginners' Course. Five hours each semester.

Essentials of grammar; composition; conversation; pronunciation. Reading of easy modern prose. Primarily for Freshmen.

11y-12y. Elementary Course. Three hours each semester.

Grammar review; composition; conversation; pronunciation. Reading of modern plays and novels. Prerequisite: One unit of high school French.

21-22. Intermediate Course. Four hours each semester.

Modern prose, poetry and drama. Intensive and rapid reading; composition; syntax; conversation. Prerequisite: Course 11-12 or 11y-12y or two years of high school French.

31-32. French Drama. Four hours each semester.

Intensive and rapid reading; reports; composition; syntax. Prerequisite: Course 21-22 or three years of high school French.

41-42. French Non-Dramatic Literature of the 19th Century.

Three hours each semester.

Intensive and rapid reading; reports. Prerequisite: Course 31-32.

33-34. Conversation.

Two class exercises a week; credit one hour each semester.

Prerequisite: Course 31-32.

43-44. General Survey of French Literature.

Three hours each semester.

A study of French literature by periods from the beginning to the present time. An advanced course open to seniors.

SPANISH

COLLEGE

11-12. Beginners' Course. Five hours each semester.

Grammar, composition and conversation. Reading of easy Spanish prose. Primarily for Freshmen and Sophomores.

21-22. Intermediate Course. Four hours each semester.

Grammar review, composition and conversation. Reading of modern Spanish and Spanish-American authors. Intensive reading in class and reports and written resumes on outside reading. Prerequisite: Course 11-12.

31-32. Introduction to Spanish Literature. Three hours each semester.

Reading of modern authors and the classics. Oral and written composition. Practice in business correspondence and conversation. (Not offered 1921-22). Prerequisite: Course 21-22.

PHYSICAL TRAINING

ASSISTANT PROFESSOR ROBERTSON, MISS BUSWELL

The department of Physical Training has supervision over all Gymnastic and Athletic activities. It is the aim of the department to give the students such exercises, games and sports as will best create and maintain a vigorous physical health. It endeavors to reach a large number of students, especially the weak and undeveloped, and to give exercise that will be within the capacity of each student. For description of the Gymnasium see page 17.

FOR MEN

Courses for men include: (1) Marching, (2) Calisthenics, (3) Light Apparatus work, (4) Athletics.

FOR WOMEN

Elementary class work is given in Swedish Gymnastics:

(a) To awaken a healthful interest in bodily exercise, and to foster a condition of vigorous health and proper health habits.

(b) To give a fundamental training which will develop motor skill, strength, self-control, and self-confidence.

(c) To correct the common physical defects, with special attention to faulty posture.

The Advanced Course includes carefully graded work with apparatus, Folk Dancing and Aesthetic Dancing.

Sports are encouraged—Tennis, Field Hockey, Basketball and Indoor Baseball.

PHYSICS

PROFESSOR SWAIM, MR. SHALKHAUSER

The courses offered in this department are outlined to meet the needs of three classes of students: First, those desiring the work for its informational value, and as supplementary to other courses; second, those intending to pursue the study of engineering or to continue their study of physics in a graduate school; third, those interested in vocational courses.

Under Vocational Courses there is outlined a course in Practical Electricity which is designed to furnish practical preparation for positions in electrical manufacturing, power, telephone, testing, and general repair companies, which require practical skill and a thorough knowledge of the principles of electricity and its applications. This course is primarily intended for those students who find it impossible to take a university course in electrical engineering and possibly have never even completed a high school course.

Sufficient instruction in the principles and theory of the work is given to enable the student to understand thoroughly the principles of construction and operation of all the types of electrical machinery.

Practical work in the laboratory includes experience in operating, testing and repairing and practice in connecting and making ready for service many types of electrical machinery.

11, 12. General Physics. Five hours each semester.

This course is intended primarily for pre-medical and non-technical students, and is as non-mathematical as is consistent with a logical development of the subject. Students who have not had high school physics or whose preparatory work has been unsatisfactory, and those who wish a general view of the field of physics, should elect this course. Prerequisites: Algebra and Geometry. Fee \$2.00.

21, 22. Advanced General Physics. Five hours each semester.

The work of the first semester is mechanics, molecular physics, and heat; that of the second semester is electricity, sound, and light. This course gives an analytical development of the subject from the modern viewpoint and is intended for students of engineering, mathematics, physics and chemistry. Prerequisites: Physics 11, 12 or High School Physics and Math. 11-12. Fee \$2.00.

31-32. Light, Heat and Electrical Measurements.

Five hours each semester.

About twelve weeks is devoted to each subject. The work in light includes diffraction, interference, refraction, dispersion and polarization; that of heat includes thermometry, expansion, vapor pressure, viscosity, conductivity, calorimetry and mechanical equivalent of heat; that of electrical measurements includes high and low resistance, electromotive force, capacity, self induction, mutual induction and hysteresis. Prerequisites: Physics 21, 22 and Integral Calculus. Fee \$2.00.

33. Electricity and Magnetism. Five hours. First semester.

This course includes the theory and operation of dynamos, motors, transformers, wireless telegraph and transmission circuits containing resistance, inductance and capacity. Prerequisites: Physics 21, 22 and Integral Calculus. Fee \$2.00.

34. Mathematical Physics. Five hours. Second semester.

The material for this course will be chosen from the various fields of physics and aims to acquaint the student with the mathematical derivations and interpretations. This course connects the work of College Physics with that of the graduate school. Prerequisites: Physics 21, 22 and Differential Equations.

Courses 31, 32 will alternate with Courses 33 and 34.

VOCATIONAL COURSES**1, 2. The Physics of the Automobile.** Two hours each semester.

This course is planned to meet the needs of the automobile student. It includes a study of the fundamental laws of mechanics, heat and electricity, and oil testing. Students who wish to take only the work in electricity may enter at the opening of the second semester. Fee \$1.00.

3, 4. Electricity and Magnetism. Five hours each semester.

The work of the first semester includes the study of direct current and its industrial applications; that of the second semester includes the study of alternating current and its industrial applications. In this course are presented the fundamental facts relating to electricity and its present day applications in a straight-forward way for the study of any man who desires to acquire a working knowledge of the subject. It includes the calculation of electromotive force current and power relations; the study of types of construction, characteristics, and operation of di-

rect current generators, alternating current generators, induction motors, converters and transformers. This course is open to all students. Fee \$2.00.

5. Electric Wiring. Five hours. First semester.

The instruction in wiring is varied, extensive, and practical. Its purpose is to familiarize students with all kinds of interior wiring. The conditions under which this instruction is given are designed to qualify students to handle commercial work. All work must be done in accordance with the rules and regulations of the National Board of Fire Underwriters. The course includes making, soldering and taping joints, kinds and sizes of wires for various classes of work, installation of electric bells, annunciators, telephones, power and lighting circuits. This course is open to all students. Fee \$3.00.

6. Electrical Construction. Five hours. Second semester.

Instruction is given in the principles relating to the construction of electrical apparatus. The student is taught to construct, wind and assemble galvanometers, electromagnets, induction coils, motors, dynamos, and transformers. Fee \$3.00.

This course is open to all students.

BRADLEY CONSERVATORY OF MUSIC

FORMERLY THE PEORIA MUSICAL COLLEGE

The Institute has long felt the need of a Department of Music and so was quick to act when the opportunity came to add a School of Music, already thoroughly organized and with an established reputation as a school equal, if not superior to any in Illinois. In the fall of 1920 The Peoria Musical College became a department of the Institute under the name, The Bradley Conservatory of Music. The Peoria Musical College was founded in 1911, by Franklin Stead, and under his direction quickly gained high rank. The aim of the school has been to maintain the highest standards in all branches of study and to provide at nominal expense, courses of instruction which would be most thorough and comprehensive.

The modern and systematic training employed from the beginning of the Preparatory Courses, through the completion of the Post Graduate Courses has brought the College merited recognition as an institution of great worth. Its educational value and high ideals have been felt, not alone in Peoria but throughout Illinois and surrounding states.

The school is continuing along the same lines under the new name, Bradley Conservatory of Music. All departments are retained and additions made, and under the general supervision and support of such a substantial institution as the Bradley Polytechnic Institute, The Bradley Conservatory of Music is rapidly becoming not only one of the largest and best equipped departments of the Institution but also one of the leading schools of music in the country.

The Conservatory occupies a building on the Bradley campus, which was remodeled and converted into studios, director's office, practice rooms and reception rooms, ready for the opening of the school year.

The Institute chapel is used by the Conservatory for all concerts and recitals and is equipped with new grand pianos and the Avery memorial pipe organ, a most welcome gift to the Institute from the Avery family.

The faculty members are representative of the highest type of musical instruction. They have had the advantage of study with the best European and American masters and are teachers of wide experience.

It is a matter of especial congratulation that Franklin Stead continues as director of The Bradley Conservatory of Music. It would be difficult for the Institute to find his superior. He is especially fitted by temperament, natural ability and musical training for this work. He has had a long period of successful experience as Head of Schools of Music in Yankton College and at the Illinois Woman's College, before establishing the Peoria Musical College.

THE CONSERVATORY FACULTY

FRANKLIN STEAD, DIRECTOR	Piano, Organ, Theory, Composition
MABEL RIGGS STEAD	Piano
ADELAIDE JANSSEN	Piano
BERTHA TODD*	Piano
MRS. DUDLEY CHASE CHAFFEE	Piano—Head of Children's Dept.
ELIZABETH MEEK	Piano—Assistant in Children's Dept.
MRS. EILLEN FAGINKRANTZ	Piano—Assistant in Children's Dept.
BEULA COLLINSON	Piano—Assistant in Children's Dept.
ADELAIDE WHITE	Piano—Assistant in Children's Dept.
CHARLES H. KEEP	Voice—Musical History
MRS. MARY H. THOMPSON*	Voice
EDITH CLINEBELL	Voice
IGNATIUS TELLO	Violin—Ensemble
MAY V. ULRICH	Violin
LAMBERTO MANTOVANI	Violoncello—Ensemble
RAYMOND RHEAUME	Saxophone—Clarinet
ELMER ARONS	Cornet—Orchestral Instruments
DANIELA JANSSEN	Public School Methods
JOSEPHINE GEIGER	Dramatic Art—Expression
NAOMI LAGRON	Modern Languages
JOSEPHINE THRUSH	Conservatory Office

* On leave of absence.

COMPLETE COURSES OFFERED

The courses of instruction offered by The Bradley Conservatory of Music are comprehensive and planned with reference to meeting the requirements of every student. The courses in *Piano, Organ, Voice, Violin and Violoncello*, are divided as follows:

- I. *Preparatory.*
- II. *Intermediate.*
- III. *Advanced (Soloist's or Teacher's Diploma.)*
- IV. *Post Graduate, Degree "Bachelor of Music."*

Students may enter any of the above courses after satisfactory examination in all requirements.

THEORETICAL COURSE

This course, which is required for graduation in any solo instrument or the voice, includes Ear Training, Elementary and Keyboard Harmony, Counterpoint, Composition, Canon and Fugue, History of Music, General Theory and Musical Analysis.

OTHER COURSES OFFERED

Normal Classes, Ensemble Playing, Interpretation Classes, Sight Singing, Chorus Work and Orchestral Classes.

FULL COURSES ARE ALSO OFFERED IN

Public School Music, Expression and Dramatic Art, Modern Languages.

SPECIAL CHILDREN'S DEPARTMENT

Great emphasis is placed upon the work in this department and it has become one of the strong features of the school.

CLARINET, SAXAPHONE, CORNET AND TROMBONE

The Conservatory offers a course of instruction in each of the above instruments.

MUSIC CREDITS

Some of the courses in the Conservatory may be used for credit towards the A. B. or the B. S. degrees. For regulations in regard to credit, see page 11.

SEND FOR INFORMATION

For full particulars as to courses of instruction, tuition rates and general information, send for the Bradley Conservatory of Music Special Catalogue describing the work of the Conservatory.

THE HOROLOGICAL DEPARTMENT

This department gives instruction in watch-making, jewelry, engraving and optics. It was established in 1886, and is therefore one of the oldest trade schools in the United States. At the founding of Bradley Polytechnic Institute in 1897, it was made a department of that school. A new building of Bedford stone was erected upon the Bradley campus, designed by the architect to meet the needs of this department. It is the only building in America planned especially for a Horological School and devoted exclusively to that work. It is beautiful in architecture, especially adapted in design to the needs of Horological students, and equipped with everything required to make instruction convenient and practical. There are 200 outside or window-lit benches, and 75 inside benches with room for a large increase when needed. Gas and electricity are supplied at every bench.

FACULTY

The Horological Department has its own Faculty, each member an expert in his line.

ALLEN T. WESTLAKE, DEAN	Engraving and Optics
FRED E. BROWN	Finishing, Repairing and Drawing
A. TEED WESTLAKE, JR.	Finishing and Repairing
W. E. J. FICKEISEN	Engraving
GEORGE F. WILD	Elementary Watchwork
C. E. CARRIER	Elementary Watchwork
OLIVER T. ZASPEL	Elementary Watchwork
LIONEL HERGET	Jewelry
L. E. GALBRAITH	Elementary Watchwork
CHARLES T. BROBST, M. D.	Lecturer in Optics
J. L. CADWALLADER	Cashier
MARY THOMPSON	Material Room
ADAH H. COMSTOCK	Assistant Material Room
ALMA L. MITCHELL	Dean's Office

COURSES OF INSTRUCTION

Only a few of the more important topics can be mentioned in the space allowed here. For full details consult the special Horological catalog.

Elementary Watchwork. Filing and making of small tools. Use of grinding materials, coloring and polishing; lathe and escapement work of all kinds; thorough training in all fundamental processes of watchmaking.

Finishing. Study of the lever; duplex cylinder and chronometer escapements; making or repairing of lost or broken parts; cutting and fitting escape wheels; study of chronographs, repairing watches and other advanced work; adjusting in temperature, position and isochronism.

Jewelry. Thorough training in the gold and silversmith's branch of the trade; practical knowledge of the art of working precious metals and repairing jewelry of all kinds.

Optics. A short course in the practice and theory of optics.

Clock Work. Repairing all forms of clocks, including calendar and French clocks.

Drawing. Theoretical escapement; design of new work.

Engraving. Thorough training in design and the use of the graver.

Lectures. Weekly lectures are given upon the theoretical and practical aspects of the trade.

Evening Classes are held for those who wish to hasten their work.

The Library contains standard works on Horology, Optics, Jewelry and Engraving.

The Horological School is open throughout the year and students may enter at any date. Instruction is individual. Women as well as men may take these courses. A student who so desires may take part of his work in Horology and a part in general education. There is a great demand for those trained at the Bradley Horological School. Send for Illustrated Catalog giving full details.

CONVOCATION 1920

VOCATIONAL COURSES

AUTOMOBILE MECHANICS

Beckett, Harold C.; Boerckel, Edgar F.; Crammond, Wilbert J.; Gehrig, Robert; Graham, John R.; Heyl, Bertie E.; Howell, Fred E.; Kendall, Ernest O.; Krause, Arthur F.; Krei, Herman J.; McMinimy, Frank L.; Mahannah, James W.; May, John H.; May, Clarence E.; Meinen, John; Nixon, Carl C.; Staehling, Oscar J.; Warner, Lewis R.; Wiley, Veril O.

ELECTRICIANS

Allen, Frank; Blankinship, Clark J.; Day, John H.; Lawton, Merwin C.; Miles, Clarence.

MACHINE DRAFTSMEN

Fritchle, Clarence D.; Johnson, Harold V.; Jones, Joseph R.; Murray, Robert E.; Rittmiller, Otto G.; Warren, Edward.

MACHINISTS

Allen, Bernard; Wallace, Thoda R.

ACADEMY

LITERATURE

Avery, Elizabeth; Colean, Clara E.; Diefenderfer, Paul T.; Heller, Miriam; Jamison, Herbert W.; Kraemer, Emilie H.; Leisy, Mildred W.; Maple, Phyllis; Moore, Luella G.; Ryan, Pauline M.; Smith, Janet S.; Wittick, Herbert E.; Younge, George H.

SCIENCE

Barton, Audrey; Burner, Jarvis B.; Derges, B. Ray; Eichorn, Pauline K.; Fahnestock, Jackson H.; Hayward, Landes H.; Hedgecock, Robert M.; Hitchcock, Arnold A.; Jilly, Ralph F.; Johnston, N. Lucille; McCormick, Donald D.; Percival, Eugene S.; Saas, Francis B.; Scott, James H. Jr.; Shepherd, Frederick L.; Speck, George P.; Tinan, Helen E.; Tucker, Harold H.; Velde, Donald L.; Wyatt, Lloyd K.

WINNERS OF INSTITUTE SCHOLARSHIPS

Herbert E. Wittick; Elizabeth Avery.

HONORABLE MENTION

Herbert W. Jamison; G. Herbig Younge.

GRADUATED WITH HONOR

Elizabeth Avery; Herbert E. Wittick.

GRADUATED WITH CREDIT

Herbert W. Jamison.

THE COLLEGE

ENGINEERING

Billbrough, Alfred E.; Breyfogel, Albert W.; Dunbar, Lee H.; Iben, Richard Jr.; Sommer, Alvin H.

SCIENCE

Allen, Hollis N.; Cusack, Patrick A.; Cusick, T. James; Day, Edgar A.; Day, Ethel; Hymann, B. Benjamin; Kesling, Floyd J.; Lutz, Oneita; Trowbridge, Loreta D.

LITERATURE

Bolles, Anna R.; Bruning, Irma M.; Cornelius, Helen L.; Dunlop, Julia T.; Forney, M. Allene; Goodrich, Alma M.; Houghton, Leatha L.; Hulsebus, Gretchen R.; Kanne, Adelaide M.; Meyer, Ruth A.; Ramsey, Hazel C.; Rudel, Corinne A.; Wyatt, M. Adaline; Wysong, Leda M.

HOME ECONOMICS

Anderson, Marybelle; Bowman, Cora A.; Buchanan, Mamie A.; Carley, Mildred A.; Cation, Margaret A.; Chambers, Minnie E.; Cole, Verna L.; Coon, Grace; Cornelius, Irene; Corwin, Cecile E.; Davis, Laurel E.; Graham, Helen M.; Johnson, Dorothy M.; Jones, Pearl E.; Jones, P. Vern; Kief, Hilma L.; Kinahan, Elton; Klein, Bertha M.; Koyl, Helene; Mendenhall, Elma J.; Nott Marie; Openheimer, Bernece; Ryan Betty D.; Schlueter, Edna; Whalen, Ruth E.; Wieting, Ahna; Wild, Helen C.; Winebright, Evelyn M.; Wright, Bertha L.

MANUAL TRAINING

Davis, Fred E.; Dayton, Huntley A.; Gaines, Harry N.; Haflich, L. Vaughn; Hodges, Merle; Humphrey, George C.; Juillerat, William B.; Kline, Samuel B.; Looman J. Kenneth; Martinson, Alfred; Waugh, Paul R.; Winterbourne, Edwin M.

BACHELOR OF SCIENCE (HOME ECONOMICS)

Davis, Melva M.; Peterson, Minnie M.; Taylor, Leota I.

MANUAL TRAINING

Lacour, Albert A.; Lindsey, Tasso T.; Meyer, Ervine F.; Royster, Richard S.; Stotler, Ernest R.

WINNERS OF THE UNIVERSITY OF CHICAGO SCHOLARSHIP

Rudel, Corinne; Lutz, Oneita.

ALTERNATES

Dunbar, Lee H.; Cusick, T. James.

WINNER OF THE SCHEELE MEMORIAL MEDAL IN CHEMISTRY

Sparks, Joseph P.

GRADUATED WITH HONOR

Breyfogel, Albert W.

GRADUATED WITH CREDIT

Carley, Mildred F.; Cusick, T. James; Davis, Laurel E.; Dunbar, Lee H.; Gaines, Harry N.; Looman, J. Kenneth; Lutz, Oneita; Mendenhall, Elma J.; Peterson, Minnie M.; Rudel, Corinne; Stotler, Ernest R.

THE HOROLOGICAL DEPARTMENT

GRADUATES IN WATCHWORK

Caward, Clarita Hammond; Jibbons, Frank H.; Mueller, P. N.; Nishikawa, Frank Issei; Stabler, J. W.; Williams, Harle.

GRADUATES IN OPTICS

Adams, H. G.; Barber, Alexander H.; Bullock, G. A.; Burky, H.; Christensen, Leonard S.; Davis, Boyd E.; Doring, Ellis C.; Hughes, B. P.; Kendle, Russel I.; Knapp, Howard K.; Liden, Theop. H.; Luck, Walter C.; Meyer, E.; Mierow, Helmith A.; Newhouse, Ernest H.; Niemann, Raymond H.; Overstreet, Wm.; Page, Glen Alfred; Rice, J. L.; Roper, Robert W.; Sauer, Morton A.; Secretst, H. G.; Slaybaugh, Clarence W.; Sommerville, Miller; Stabler, J. W.; Sunn, L. D.; Van Pelt, T. M.; Walker, Richard R.; Wangenstein, Barth F.; Whitt, J. Harrold.

TRADE LIST

Adams, H. G.; Burky, H.; Carrier, Charles E.; Caward, Mrs. C. H.; Cooper, L. P.; Deputy, Fred T.; Duhnke, N. E.; Edwards, H. R.; Estes, Howell E.; Furey, Cornelius J.; George, William F.; Hebert, R. E.; Jibbins, Frank H.; Liden, Theop. H.; Moore, Raymond; Mueller, R. R.; Overstreet, William; Phillips, Frank L.; Roper, Robert Wilson; Roeder, William V.; Rege, Glen A.; Rice, J. L.; Roberts, P. B.; Shaffer, Ralph A.; Stabler, J. W.; Tucker, G. A.; Van Cliff, W. D.; Van Pelt, T. M.; Walter, E. L.; Walker, R. R.

LIST OF STUDENTS

COLLEGE STUDENTS

Aldridge, Lilly L.....	Minier	Daly, Eunice.....	Peoria
Allen, Beatrice S.....	Auburn	Damon, Russell I.....	Peoria
Allison, Don D.....	East Peoria	Davison, Claude L.....	Peoria
Amsler, Lester.....	East Peoria	De Moure, J. Marion.....	Peoria
Anderson, Edwin J.....	Minden, Neb.	DeVors, Gertrude M.....	Buffalo, Wyo.
Anderson, Inez I.....	Henry	Diefenderfer, Paul T.....	Fullerton, Pa.
Applegate, Virginia L.....	Peoria	Dolan, Alice M.....	Peoria
Applegren, Mary E.....	Peoria	Dorman, Marion P.....	Peoria
Aydelott, William A.....	Pekin	Dorsey, Edith M.....	Peoria
Babcock, Golden A.....	Carman	Doubet, Earl W.....	Peoria
Banish, William J.....	Osakis, Minn.	Dow, J. Neal.....	Canterbury Sta., N. B., Can.
Barber, Berenice M. W.....	Lakewood, Ohio	Dresser, Ruth E.....	Crown Point, Ind
Barloga, Floyd T.....	Pecatonica	Dunn, Catherine M.....	Benzonia, Mich.
Barnett, F. Newell.....	Peoria	Dunn, Dorothy E.....	Peoria
Barton, Audrey.....	Peoria	Dunn, William P.....	Peoria
Barton, Verna M.....	Peoria	Eagleton, Lee O., Jr.....	Peoria
Beasley, Gladys M.....	Peoria	Eichorn, Pauline K.....	Peoria
Becker, Hazel.....	Peoria	Elliott, Harold R.....	Peoria
Behrends, Althea T.....	Hartsburg	Engle, Alice L.....	Sullivan, Ind.
Benes, Litta M.....	Kankakee	Englund, Inez.....	Williamsfield
Bennett, Joseph F.....	Mattoon	Ernst, Paul A.....	Hannibal, Mo.
Berglin, Lloyd R.....	Peoria	Ewing, Robert M.....	Baldwin
Bigham, Eleanor.....	Peoria	Fahnestock, Jackson H.....	Peoria
Boren, Guy H.....	Pearl	Fair, Margaret E.....	Pekin
Bradley, Kathryn L.....	Peoria	Faulkin, Leslie J.....	Peoria
Bragg, Marguerite.....	Ottawa	Fawver, Russell S.....	Gibson City
Brayshaw, Leona W.....	Tippecanoe City, O.	Fegley, Marie A.....	Ottawa
Brewer, Horace.....	Peoria	Ferris, Paul B.....	Princeton
Brown, Harriott S.....	Peoria	Fisher, Glenn E.....	Walnut
Brown, W. Ignatius.....	Dickinson, N. Dak.	Flack, Gertrude L.....	Delevan, Wis.
Brungard, Marie F.....	Farmington	Flanagan, Marguerite C.....	Peoria
Brunsmann, Arthur R.....	Peoria	Foley, Paul J.....	Mapleton
Buchanan, Edna C.....	Kewanee	Fox, Marguerite E.....	Washington
Buchele, Carl A.....	Peoria	Freidheim, Clarabelle.....	Minneapolis, Minn.
Buckley, Wayne A.....	Peoria	Fromme, Dorothy E.....	Peoria
Buehrig, Donald F.....	Mason City	Garlick, Alfred J.....	Oxford Junction, Ia.
Burden, Winfred F.....	Brownsburg, Ind.	Gehrig, Robert E.....	Pekin
Burgess, A. Pauline.....	Goodland, Ind.	Gillet, Alta M.....	Trivoli
Burke, Helena.....	Peoria	Glenn, George W.....	Peoria
Burroughs, Helen M.....	Peoria	Goodrich, Alma M.....	Peoria
Burroughs, Mary M.....	Peoria	Green, Viola M.....	Peoria
Burt, Elliott P.....	Peoria	Griesser, Doris L.....	Peoria
Bush, Margaret.....	Peoria	Griesser, Dorothy M.....	Peoria
Cafferty, Helen V.....	Peoria	Grimes, Kenneth M.....	Nebo
Campbell, Walter E.....	Peoria	Haefner, Carl.....	Peoria
Carley, Mildred F.....	Quincy	Haman Ralph.....	Sciota Mills
Chamberlain, Maude E.....	Chalmers, Ind.	Hammel, Hilda.....	Peoria
Chambers, Minnie E.....	Elmwood	Hartwig, Carl E.....	Peoria
Clark, Gladys M.....	Peoria	Hawkes, Ethel H.....	Kewanee
Clark, William.....	Peoria	Hayes, Bernice.....	Galesburg
Cleveland, Gertrude L.....	Prophetstown	Hazen, Effie.....	Peoria
Cohen, George L.....	Peoria	Hazzard, Lucia.....	Peoria
Cohen, Maurice P.....	Peoria	Hedgcock, Robert M.....	Plymouth
Collins, Cecil.....	Sour Lake, Tex.	Hedin, Elmer A.....	Hastings, Minn.
Conlee, Ruth E.....	Pekin	Heinzman, Carina.....	Metamora
Conrad, Albert J.....	New Providence, Pa.	Hershe, Clarence.....	Peoria
Conway, Charlotte F.....	Peoria	Higgs, Ralph.....	Farmington
Cook, Lucile.....	Peoria	Hill, Max L.....	Peoria
Cotter, Leslie A.....	Clifton	Himmel, Winfred.....	Pekin
Coulter, Curtis L.....	Peoria	Hitchcock, Arnold A.....	Peoria
Cowell, Josephine.....	Peoria	Hoagland, Louise G.....	Peoria
Cullen, Lucille C.....	Peoria	Hoerr, Normand L.....	Peoria
Curtiss, Marshall B.....	Bradford	Housh, Isol J.....	Peoria
Cusick, T. James.....	Edwards	Howard, Charlotte.....	Peoria

Howell, Fred.....	Springfield, Ohio	Palmquist, Helen E.....	Lime Springs, Ia.
Huck, Mark C.....	Quincy	Patton, William J.....	Peoria
Humphrey, Alma L.....	Maywood, Mo.	Paul, Laughton H.....	Peoria
Hurlbutt, Lois.....	Galesburg	Paul, Marjorie E.....	Peoria
Hypes, Amos S.....	Peoria	Payne, Bernys.....	Washington
Icenogle, Karl L.....	Macomb	Peck, Ruby.....	Chenoa
Ireland, Frank N., Jr.....	Washburn	Pennewill, Helen L.....	Washington
Ireland, Harrison B.....	Washburn	Perry, Roberta.....	Westfield, Ind.
Ireland, Marjorie B.....	Peoria	Peters, Russell F.....	Peoria
Isch, Wilma A.....	Metamora	Peterson, Winfield A.....	Metamora
Jacob, Salome J.....	Peoria	Pettis, Harold L.....	Peoria
Jamison, Grace S.....	Peoria	Pfander, Hilda M.....	Peoria
Jamison, Herbert W.....	Peoria	Phillips, Vernon A.....	Lostant
Jeter, Helen E.....	Russaviile, Ind.	Plumer, Leland H.....	Brimfield
Jilly, Ralph F.....	Peoria	Polhemus, Garretta V.....	Peoria
Johnson, George.....	Altona	Powell, Burt M.....	Peoria
Johnson, Harold V.....	Belvidere	Pugh, Harold E.....	Good Hope
Johnson, Ralph C.....	Kankakee	Ramsey, Hazel.....	Fairbury
Johnston, N. Lucille.....	Peoria	Rankin, Gladys.....	Media
Jones, Berneice.....	Peoria	Rasmussen, Harvey E.....	Gibson City
Juerjens, Fred.....	Peoria	Reeves, Marian.....	Peoria
Kanne, Adelaide.....	Peoria	Rice, Henry C.....	Madison, Minn.
Kelly, Howard E.....	Kankakee	Richards, Cecil.....	Peoria
Kelly, Opal E.....	Peoria	Rider, E. Marguerite.....	Cleveland, Ohio
Kendall, David A.....	Peoria	Roberts, Fred M.....	Frankfort, Ind.
Kent, Mabel M.....	Alta	Royce, Grant E.....	Sparland
Kinhofer, Garma G.....	Metamora	Ruble, Earle L.....	Lostant
Kinney, Helen L.....	Toulon	Ruch, Alan.....	Peoria
Klarnier, Elizabeth.....	Quincy	Ruhaak, Margaret.....	Peoria
Knox, David L.....	Pearl	Ryan, Bernadette M.....	Peoria
Krablin, John.....	Onarga	Ryan, Pauline M.....	Wyoming
Kraeger, Dorothy J.....	Pekin	Sankey, Carmen E.....	Peoria
Kraemer, Emilie H.....	Peoria	Scherrer, George J.....	Peoria
Kraker, Kenneth.....	Peoria	Schifeling, Frederick S.....	Peoria
Kreitzer, Richard.....	Dixon	Schneider, Robert E.....	Pekin
Kuhlmann, Gerhard S.....	Peoria	Schneider, Ruth.....	Pekin
Lamb, William E.....	Galesburg	Schoenfeld, Merritt R.....	Peoria
Lamp, Ione M.....	Lanark	Schoenheider, Gertrude.....	Peoria
Langton, Katherine M.....	Peoria	Seeba, Henriette G.....	Peoria
Leadley, Averil C.....	Wyoming	Sellers, Ben F. Jr.....	Decatur
Lee, Philip W.....	Northfield, Minn.	Seltzer, Ruth E.....	Peoria
Leisy, Helena M.....	Peoria	Shadinger, Max H.....	Snohomish, Wash.
Leisy, Mildred.....	Peoria	Shaeffer, Glenn N.....	Balaton, Minn.
McBride, Maxine.....	Paris	Shepler, Clarence H.....	Peoria
McClintick, Allen J.....	Peoria	Shirley, John W.....	Orleans, Ind.
McDonough, Edward J.....	Peoria	Shuttleworth, Cornelius.....	Pekin
McMahan, Russel S.....	Waverly	Smith, Dorothea E.....	Peoria
Mackemer, Eva V.....	Peoria	Smith, Marie A.....	Henry
Maddox, Clarence E.....	Peoria	Smith, Ray.....	Pekin
Mahannah, Camille.....	Bartonville	Smizer, Fern.....	Peoria
Mann, Margaret E.....	Mannville, Fla.	Sparks, Joseph P.....	Peoria
Martin, Edith A.....	Quincy	Speck, George P.....	Peoria
Mason, George E.....	Peoria	Staley, Lois M.....	Peoria
Mehl, Frederick O. A.....	Peoria	Stansell, Lucile A.....	McNabb
Miles, Roberta K.....	Peoria	Steiner, George M.....	Cissna Park
Millard, Helen L.....	East Peoria	Stormer, Viola M.....	Peoria
Misner, Dorothy C.....	Peoria	Strine, Mildred D.....	Tiskilwa
Mooney, Albert.....	Madison, Minn.	Sudenga, Ruth L.....	Peoria
Moore, Lillian C.....	Boonville, Ind.	Sutton, Lois.....	Peoria
Morey, Emeline G.....	Lowell, Ind.	Swanson, Lois L.....	Orion
Morgan, Florence B.....	Galva	Swarts, Ernest L.....	Dixon
Murray, Catherine M.....	Peoria	Taylor, Howard J.....	Roseville
Murray, Robert E.....	Circleville, Ohio	Taylor, Jenny.....	Greenville, Ky.
Nachman, Leonard C.....	Peoria	Taylor, Robert B.....	Peoria
Neikirk, George A.....	Brimfield	Tinan, Helen E.....	Peoria
Nelson, Fritz J.....	Chicago	Tinen, Genevieve E.....	Peoria
Newell, Audra A.....	Washburn	Tirmenstein, Paul G.....	St. Louis, Mo.
Newell, Leland R.....	Washburn	Toman, Joseph C. Jr.....	Poneto
O'Brien, Ruth V.....	Mendon	Townslay, Howard A.....	Peoria Heights
Ortman, Bernard.....	Onarga	Trewyn, Bryant H.....	Palmyra, Wis.
Osborn, George J.....	Carthage	Triebel, Louis.....	Peoria

Tucker, Harold H.....Peoria
 Tucker, Sidney L.....Peoria
 Vandenburg, Alma F.....Peoria
 Velde, Donald L.....Peoria
 Verner, Beatrice I.....Peoria
 Voelpel, William F.....Peoria
 Vogel, Margaret.....Peoria
 Voorhees, Theodore P.....Onarga
 Walker, Fred W.....Mason City
 Weber, Norma L.....Pekin
 Weeks, Bernice.....Washington
 Weinkauff, Wilbur H.....Peoria
 White, Elsie.....Peoria
 White, Virginia.....Peoria
 Wieting, Edna C.....Peoria
 Wilber, Hugh E.....Galva

Wiley, Veril O.....Monticello
 Wilson, Phyllis.....Tremonton, Utah
 Winget, Walter W.....Peoria
 Witchi, Walter J.....Peoria
 Woods, Dorothy.....Waverly
 Woods, Naomi.....Cicero
 Wright, Nelson A., Jr.....Manito
 Wyatt, Lloyd K.....Peoria Heights
 Wynd, Clarence.....Peoria
 Wysong, C. Lenore.....Peoria
 Yuhasz, Joseph.....Peoria
 Zimmermann, Albert J.....Peoria
 Zimmermann, George W.....Peoria
 Zinser, Samuel A.....Washington
 Zuck, Marian.....Lanark

ACADEMY

Ackerman, Lester.....Peoria
 Arnholt, Clifford H.....Peoria
 Atwood, Harry G.....Peoria
 Barthell, Virginia.....Peoria
 Barton, Harry.....Peoria
 Bergan, John P.....Peoria
 Bonjean, Ernesta.....Peoria
 Bottigheimer, Ellis F.....Peoria
 Bowman, Joseph P.....Peoria
 Brickner, George W.....Peoria
 Brown, Ralph E.....Pekin
 Burner, Philip E.....Peoria
 Cady, Merton S.....Peoria
 Cornell, Clara G.....Peoria
 Dalton, Willard.....Peoria
 Daly, Bernadine.....Peoria
 Dart, Kermit.....Peoria
 Disney, Marcella.....Peoria
 Donahoe, William J.....Bloomington
 Dooley, Edward B.....Peoria
 Eckard, Virginia B.....Peoria
 Evans, Lawrence.....Peoria
 Ewalt, Walter O.....Peoria
 Farnum, Frank C.....Peoria
 Floyd, Truman W.....Peoria
 Foster, Florence G.....Peoria
 Foster, Frank S.....Peoria
 Fuller, Albert C.....Peoria
 Gordon, Hope L.....Alta
 Graner, Anita.....Peoria
 Grigsby, David L.....Terre Haute, Ind.
 Harkrader, Virgil.....Peoria
 Hayward, Dorothy G.....Peoria
 Hicken, Alfred.....Peoria
 Holderman, Edwin S.....Paxton
 Holt, Thomas E.....Peebles, Ohio
 Hotchkiss, George M.....Peoria
 Hulin, Arthur J.....Peoria
 Jones, Kenneth M.....Peoria
 Keep, Charles R.....Peoria
 Kneer, Donald.....Peoria

Kuszmaul, Leo J.....Delavan
 Limage, Gordon J.....Hanover
 Lindstrom, Vernell.....Peoria
 McClallen, Thornton W.....Peoria
 McClintick, Genevieve.....Peoria
 McFadden, Richard R.....Havana
 McFadden, S. Jeanette.....Peoria
 Maddox, Clarence E.....Peoria
 Mehl, Helen A.....Peoria
 Merkle, Virginia.....Peoria
 Meyer, Frank L.....Peoria
 Meyer, Thelma O.....Peoria
 Miles, Chester F.....Peoria
 Oesterley, Edward H.....Peoria
 Opie, Fremont, Jr.....Trivoli
 Orchard, Clifford D.....Peoria
 Packard, Marjorie.....Peoria
 Proctor, Henrietta.....Peoria
 Putnam, J. Clifford.....Peoria
 Radley, Richard H., Jr.....Peoria
 Reinhart, Dorothy.....Peoria
 Roth, John H. Jr.....Peoria
 Saas, Frederick C.....Peoria
 Schmidt, Walter H.....Peoria
 Schoenfeld, Willis A.....Peoria
 Smith, Agnes G.....Peoria
 Stamp, Vera F.....Peoria
 Stanger, Harry J.....Hanover
 Starke, Virginia I.....Atlanta, Ga.
 Starrett, Luster L.....Peoria
 Steinmetz, Peter F.....Pekin
 Stowe, Mary W.....Peoria
 Strayer, Arleigh E.....Peoria
 Taylor, W. Olene.....Peoria
 Tinthoff, Fred O.....Peoria
 Turnbull, Eugene S.....Sparland
 Ulrich, Lucille M.....Peoria
 Ulrich, Sidney.....Peoria
 Wallace, Helen L.....Peoria
 Younge, Paul A.....Peoria

SPECIAL STUDENTS

Brannon, Herbert F.....Peoria
 Englund, Marie.....Williamsfield
 Rees, Nellie.....Pekin

Romine, Harry V.....Peoria
 Tillotson, Eunice B.....Peoria

VOCATIONAL DEPARTMENT

Alexander, Howard R.....	Peoria
Allen, Bernard.....	Fort Atkinson, Wis.
Amodt, Nels.....	Chicago
Anderson, A. Britton.....	Princeton
Anderson, Harold C.....	Peoria
Andrew, Calvin C.....	Peoria
Bachman, Ben D.....	Roanoke
Bale, Harry F.....	Petersburg
Barger, Carl.....	Golconda
Bennett, Harry J.....	Williamsfield
Beyer, Philips M.....	Morton
Blachinsky, Richard J.....	Kewanee
Bodle, George E.....	Bradford
Bonjean, Peter.....	Peoria
Bool, William E.....	Ashland
Branham, Elmer.....	Virginia
Brassfield, Bert O.....	Peoria
Budde, Wesley E.....	Red Bud
Burns, Daniel.....	Springfield
Burns, Robert F.....	Galesburg
Calder, Charles L.....	Peoria
Cawvey, Amos T.....	Marion
Caywood, Edgar E.....	Virginia
Casey, C. Michael.....	Esterbrook, Wyo.
Cody, Raymond.....	Peoria
Colgan, Thomas F.....	Bradford
Crabtree, Ralph A.....	Peoria
Crow, Clarence E.....	Sioux Rapids, Ia.
Davis, Malvern.....	Sesser
Dean, Willet S.....	Tamaroa
Dixon, Roy.....	Harrisburg
Doerr, George A.....	Peoria Heights
Donahoe, William J.....	Bloomington
Ehnlé, Dan A.....	Peoria
Ehnlé, George A.....	Peoria
Ellars, Leslie.....	Decatur
Erswell, William H.....	Averyville
Farthing, Samuel.....	Odin
Feeney, Thomas C.....	Peoria
Fellwock, William H.....	Vandalia
Fitzgerald, William D.....	El Paso
Fletcher, Harold A.....	Wyanet
Fouts, Raymond E.....	Peoria
Fretueg, N. Lloyd.....	Industry
Fritchle, Clarence D.....	Moline
Fudge, James D.....	Yale
George, James H., Jr.....	Mt. Vernon
Gilbert, Lester.....	Peoria
Goldstein, Herbert.....	Peoria
Grant, Lawrence M.....	Peoria
Griffin, John J.....	Clinton
Hampton, William C.....	Sorento
Hankins, Presley L.....	Effingham
Harris, Melvin.....	Vienna
Hartwig, Henry.....	Bartonville
Hasty, Glen F.....	Mackinaw
Hayden, Frank L.....	Peoria
Helffelstein, William F.....	Pekin
Hiatt, James M.....	Eureka
Hines, Hobart W.....	Peoria
Hoeey, Nicholas H.....	Peoria
Hofreiter, Frank.....	Peoria
Houk, Carl C.....	Havana
Johnson, Arlo H.....	Monmouth
Johnson, Henry J.....	Muskegon, Mich.
Johnson, William L.....	Detroit, Mich.
Jordan, Walter J.....	Pittsfield
Keefner, John.....	Springfield
Keelin, Hurdis P.....	Thompsonville
Kelly, Joseph M.....	Peoria
Kelton, David D.....	Carmi
Kennedy, Roy M.....	Monmouth
Kinkade, George B.....	Hamilton
Kranich, Adam.....	Blue Island
Krei, Herman.....	Peoria
Lashbrook, Lowell M.....	Cooperstown
Lawton, Mervin C.....	Dixon
Linder, Clarence H.....	Dundas
Lindsey, Simon L.....	Peoria
McCandless, James C.....	Riverton
McCans, Archie D.....	Greensboro, N. C.
McClure, Thomas J.....	Bloomington
McGinnis, Charles W.....	Peoria
McNeill, Garland E.....	Peoria
Macha, William J.....	Peoria
Main, Carson E.....	Nebo
Mansfield, Harold D.....	Peoria
Marcus, Bernard.....	Peoria
Meinen, John.....	Pekin
Mennel, George E.....	Quincy
Miller, Alvin H.....	Wyanet
Miller, Claude S.....	Bloomington
Miller, Harold R.....	Erie
Modlin, William C.....	Peoria
Moore, Arthur J.....	Springfield
Morrow, Eugene.....	Greenville
Nester, John M.....	Muscatine, Ia.
Newsam, Jack M.....	Seattle, Wash.
Nibbelin, Prentice N.....	Peoria
Nischwitz, E. Philip, Jr.....	Havana
Nixon, Carl C.....	Chillicothe
Nolan, Gilbert.....	Owaneco
Oexle, Collin.....	Peoria
Olson, Elmer R.....	Paxton
Parsons, Ernest R.....	Forest
Petri, Christian.....	Peoria
Puterbaugh, Byron E.....	Eureka
Reinheimer, Charles F.....	West Frankfort
Riggs, Adrian L.....	Peoria
Roads, Daniel W.....	Pittsfield
Rogers, Clarence E.....	Brownsville, Ind.
Ross, James E.....	Peoria
Schuessler, Frank J.....	Springfield
Schultz, Harry H.....	Peoria
Sheppard, Fred R.....	Carterville
Slagle, Elmer E.....	Oregon
Smith, James R.....	Bradford
Sprouse, George G.....	Bloomington
Strawn, Ralph H.....	Lacon
Stretch, Edwin.....	Patoka
Strohmer, John.....	Muskegon
Taylor, William A.....	Orchardsville
Thompson, Ben.....	Newton
Thompson, Ben H.....	Peoria
Tomlinson, Victor R.....	Rock Island
Walker, Harvey.....	Port Byron
Wallace, Thoda R.....	Elvaston
Walter, John.....	Peoria
Walters, Thomas B.....	Elkville
Warren, Edward.....	Springfield
Wenzel, Henry G.....	Peoria

TRACTOR DEPARTMENT

Barloga, Floyd.....Pecatonica
 Berry, George W.....Pekin
 Breckenridge, Harold.....Clarion, Ia.
 Burroughs, Glenn.....Grayville
 Casey, Michael.....St. Marie
 Caywood, Edgar.....Virginia
 Clegg, Howard.....Rutland
 Conn, Chester.....Pekin
 Erswell, William H.....Peoria
 Eveland, Abner.....Peoria
 Frenzel, Paul.....Peoria
 Gellerman, Arthur H.....Mason City
 Gellerman, James H.....Mason City
 Hankins, Presley L.....Effingham
 Hewitt, Dwight.....Morning Sun, Ia.
 Hiatt, James.....Peoria
 Hiltabrand, Henry.....Lostant
 Hodges, John.....Bradford
 Jones, Fred C.....Laura

Keener, Dale.....Altoona
 Kreiling, Arthur.....Peoria
 Krumpe, Frederick.....Peoria
 List, Loren F.....Mason City
 McKown, Merle.....Monica
 Moul, Earl.....Elmwood
 Nischwitz, E. Philip.....Havana
 Plattner, Joseph.....Morton
 Robertson, Earl.....Owaneco
 Robinson, Charles.....Metamora
 Rogers, Clarence.....Brownsburg, Ind.
 Ryan, Joseph F.....Peoria
 Smith, Edward.....Peoria
 Smith, Ellis.....Pittsfield
 Smith, James R.....Bradford
 Smizer, Parker.....Middlegrove
 Trigg, Burt R.....Peoria
 West, John A. Jr.....Peoria

SUMMER SCHOOL STUDENTS

Ahlenfeld, Olivia J.....Chillicothe
 Allen, Chester B.....Normal
 Arnholt, Clifford.....Peoria
 Ary, Marcella.....Tiskilwa
 Bader, John A.....Quincy
 Baird, Edgar L.....Vevay, Ind.
 Barto, Clara M.....Bradford
 Beseman, Ella E.....Peoria
 Beyer, Philip.....Morton
 Bibb, Anna.....Peoria
 Blackman, John H.....Peoria
 Boise, Edward.....Peoria
 Bottigheimer, Ellis F.....Peoria
 Bouton, Ada R.....Peoria
 Browne, S. Dill.....Burlington, Ia.
 Brungard, Marie F.....Farmington
 Buchanan, Mamie A.....Kewanee
 Bullock, Raymond A.....Donna, Tex.
 Burroughs, Mary M.....Morton
 Byers, Marjorie K.....East Chicago, Ind.
 Byram, Mildred M.....Pekin
 Carley, Mildred.....Quincy
 Casey, C. Michael.....Esterbrook, Wyo.
 Cation, Margaret.....Peoria
 Clark, William.....Peoria
 Cleveland, Cyrus H.....Oak Park
 Clute, Mary E.....Brimfield
 Coulter, Curtis.....Peoria
 Crabtree, Ralph.....Lewiston
 Davis, Laurel.....Peoria
 Dix, Ruth M.....St. Louis, Mo.
 Donathan, Erma.....Chicago
 Doran, Josephine.....Peoria
 Drury, Lawrence V.....Jerseyville
 Dunlop, Julia.....Peoria
 Dunn, Abigail A.....Peoria
 Dunning, George.....Cincinnati, O.
 Ernest, Dwight M.....Peoria
 Eckhart, Beryl.....Peoria
 Eckhart, Gladys O.....Peoria
 Eckhart, Ora E.....Peoria
 Ellars, Leslie.....Decatur
 Feakes, George R.....Pine River, Minn.
 Flack, Gertrude L.....Delevan, Wis.
 Fox, Henrietta A.....E. Peoria
 Fritchle, Clarence.....Peoria

Gambach, J. C.....Peoria
 Garoian, George S.....St. Louis, Mo.
 Gibb, Marjorie.....Media
 Gilmore, Charles M.....Richmond, Ky.
 Gorman, Agnes M.....Peoria
 Gould, C. J.....Huntington, W. Va.
 Grant, Janet C.....Peoria
 Greves, Mildred J.....Peoria
 Gumm, Chester E.....Ramona, Okla.
 Haflich, L. Vaughn.....Bluffton, Ind.
 Haney, Joseph M.....Hudson, Ohio
 Hayes, Hannah.....Houston, Tex.
 Haynie, Hood L.....Peoria
 Headley, Mrs. Anna M.....Peoria
 Hemenway, Anna.....Joliet
 Hemmer, William A.....O'Fallon
 Hester, Mrs. Anna.....Peoria
 Hodges, Merle.....Meredosia
 House, Harry L.....Elwood, Ind.
 Housh, Isol J.....Peoria
 Huddleston, Grace E.....Washington
 Humphrey, George C.....Lewiston
 Hunt, Herschel H.....Rome, Ohio
 Hurless, R. N.....Clinton, Ia.
 Johnson, William R.....Sour Lake, Tex.
 Johnston, Thomas W.....Virginia
 Juillerat, William B.....Akron, Ohio
 Keith, Stuart W.....Peoria
 Kelton, David D.....Carmi
 Koyl, Clarence L.....Sault Ste. Marie, Mich.
 Kreyling, Arthur.....St. Louis, Mo.
 Landers, Ethel.....Chillicothe
 Langton, Katharine F.....Peoria
 La Porte, Mrs. Eleanor B.....Peoria
 Larison, Sue C.....Peoria
 Lee, Phillips W.....Northfield, Minn.
 Lewis, Bessie G.....Peoria
 Long, Mary.....Lacon
 Looman, Kenneth.....Meredosia
 Maahs, Erich.....Peoria
 Main, Carson E.....Nebo
 Martens, Anna E.....Peoria
 Martinson, Alfred.....Madison, Minn.
 Mercker, Andrew M.....Quincy
 Miller, Henry C.....Peoria
 Miltonberger, George.....Huntington, Ind.

Mooberry, Olive K.....	Farmdale	Schurman, Clarence R.....	Hoopeston
Myrtengren, Paul E.....	Bishop Hill	Shanks, Ellis C.....	Atlanta, Ga.
McClallen, Vera M.....	Peoria	Shoop, Louise W.....	Wenona
McCormick, James R.....	Peoria	Shultz, La Vera.....	Attica, Ind.
McCormack, Lawrence.....	Cadiz, Ind.	Sparks, Joseph P.....	Peoria
McKenzie, Ralph.....	Fredericton, N. B., Can.	Spring, Ethel.....	Washington
Nelson, Fritz J.....	Chicago	Staehling, Augusta M.....	Danforth
Newell, Argy.....	Peoria	Stokes, Edwin F.....	Indianapolis, Ind.
Orman, John W.....	Tulsa, Okla.	Summers, Robert M.....	Peoria
Parsons, Ernest R.....	Forrest	Turnbull, Frances E.....	Peoria
Patlow, J. R.....	Bayfield, Wis.	Turner, Helen.....	Eden
Patterson, Laura G.....	Peoria	Ulrich, Sidney L.....	Peoria
Payne, Bernys.....	Washington	Uribe, Josephine.....	
Pearson, Roy W.....	Ashtabula, Ohio		Bucaramanga, Colombia, S. A.
Percival, Eugene.....	Peoria	Uribe, Mary.....	Bucaramanga, Colombia, S. A.
Preston, Edith.....	Pekin	Vaughan, John H.....	Peoria
Pulliam, George E.....	Mt. Vernon	Waldmeier, Mary.....	Pekin
Quinn, Agnes M.....	Peoria	Walker, Harvey.....	Port Byron
Quinn, Catherine C.....	Peoria	Wallace, Thoda R.....	Elvaston
Ramsey, Hazel C.....	Fairbury	Weber, Marie.....	Pekin
Reinhard, Auguste L.....	Peoria	Wells, Gilbert A.....	Smithshire
Reinhard, Gertrude.....	Peoria	Westermann, Remda H.....	Peoria
Riesz, Lydia G.....	Peoria	Westphal, Herman F.....	Milwaukee, Wis.
Rosenbohm, Marie.....	Peoria	Whalen, Ruth E.....	Peoria
Ross, Lillian.....	Peoria	Wiley, Veril O.....	Monticello
Ross, Myra.....	Peoria	Wilson, Russell.....	Peoria
Sandstrom, Cuthbert F.....	Centerville, Ia.	Winkler, Olga E.....	Metamora
Sawyer, Jessie A.....	Peoria	Wyatt, Lloyd K.....	Peoria Heights
Schaefer, William M.....	Alton	Wysockey, Lanrelot F.....	Minot, N. Dak.
Schilling, Herbert R.....	Cleveland, Ohio		

SUMMARY OF STUDENTS

	Men	Women	Total
College	157	145	302
Academy	56	25	81
Special	2	3	5
Vocational	133		133
Tractor	37		37
Summer School	84	66	150
Evening School	635	34	669
Architectural Drawing.....	24		
Automobile (Advanced).....	65		
Automobile (Elementary).....	112		
Chemistry	24		
Practical Electricity.....	42		
Engraving	40		
Jewelry	60		
Mechanical Drawing.....	62		
Machine Shop	97		
Sewing	21		
Sheet Metal Drawing.....	5		
Storage Battery.....	33		
Shop Mathematics.....	23		
Woodwork	48		
Food	13		
Conservatory of Music.....	44	316	360
	1148	592	1737
Deduct names counted more than once.....	21	32	53
	1127	560	1684
Horological Department			330
			2014

RESIDENCE OF STUDENTS

School of Arts and Science and Music:			
From Peoria	1295		
From Illinois, outside of Peoria.....	293		
From other states.....	92		
From other countries.....	4		1684
Horological Department:			
From Peoria	12		
From Illinois, outside of Peoria.....	69		
From other states.....	244		
From other countries.....	5		330
			2014

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APPLICATION FOR ADMISSION TO BRADLEY INSTITUTE

USE THIS BLANK

Mail it to Bradley Polytechnic Institute, Peoria, Illinois.

If you wish to enter Bradley Institute, it is important that you forward this application at once.

Name
First name in full. Middle name. Last name.

What is your
date of birth.....

Present P. O. Address.....

Name of Parent
or Guardian.....
and

P. O. Address.....

The Institute offers great variety of work-college and vocational. Check the lines which especially interest you.

I. COLLEGE COURSES

Science
Engineering
Premedical
Literature
Manual Training
Domestic Science
Teaching (Grades or H. School)
Business and Commerce
Conservatory of Music
Secretarial Course
Art
Social Science

II. VOCATIONAL COURSES

Automobile
Practical Electricity
Machine Shop
Woodworking
Drafting
Watchmaking
Jewelry
Engraving
Optics
Tractor (Winter)
Evening Classes

Are you a high school graduate?

State school and date.....

If not, what school have you
attended and for how long.....

Have you attended any college?

State place and date.....

State what practical or teaching
experience you have had.....
.....
.....
.....

Signature of applicant.....

Date.....19.....

(OVER)

HIGH SCHOOL RECORD

(To be filled by applicant; not by school official)

State opposite each study below, the number of units you have had.
A unit is the equivalent of one hour daily for one school year.

	You have units
ENGLISH	
FOREIGN LANGUAGE	
Latin	" " "
German	" " "
Spanish	" " "
French	" " "
MATHEMATICS	
Algebra, Elementary	" " "
Algebra, Advanced	" " "
Plane Geometry	" " "
Solid Geometry	" " "
Commercial Arithmetic	" " "
SCIENCE	
Physics	" " "
Botany	" " "
Chemistry	" " "
Zoology	" " "
Physiology	" " "
Physical Geography	" " "
Commercial Geography	" " "
HISTORY	" " "
SHOP	" " "
DRAWING	" " "
COOKING	" " "
SEWING	" " "
Other subjects as listed below:	
.....	" " "
.....	" " "
.....	" " "
.....	" " "

For official verification of this, the Institute should address.....

.....Superintendent or Principal of

.....High School.

(City)

(State)

On receipt of this application, the Institute will send for your school record and then report finally to you respecting your admission.

1921-1922

(OVER)

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22

Vol. IV

UNIVERSITY OF ILLINOIS LIBRARY
No. 6
MAY 2 1922

Bulletin

BRADLEY POLYTECHNIC INSTITUTE

THE SCHOOL OF ARTS
AND SCIENCES



PEORIA, ILLINOIS

MAY, 1922

BRADLEY POLYTECHNIC INSTITUTE

PEORIA, ILLINOIS

FOUNDED 1897



THE GYMNASIUM

CONSERVATORY OF MUSIC

THE MANUAL ARTS BUILDINGS

HOROLOGY HALL

BRADLEY HALL

The Large Athletic Field lies between the Gymnasium and the Manual Arts Buildings. The Power Plant, Administration Building, Girls' Dormitory and Practice House for Domestic Economy students are not included in this partial view of the campus.

BRADLEY POLYTECHNIC INSTITUTE

THE SCHOOL OF ARTS AND SCIENCES

Catalogue 1921-1922

Announcements for 1922-1923

Published by Bradley Polytechnic Institute
March, May, June, August, September, December

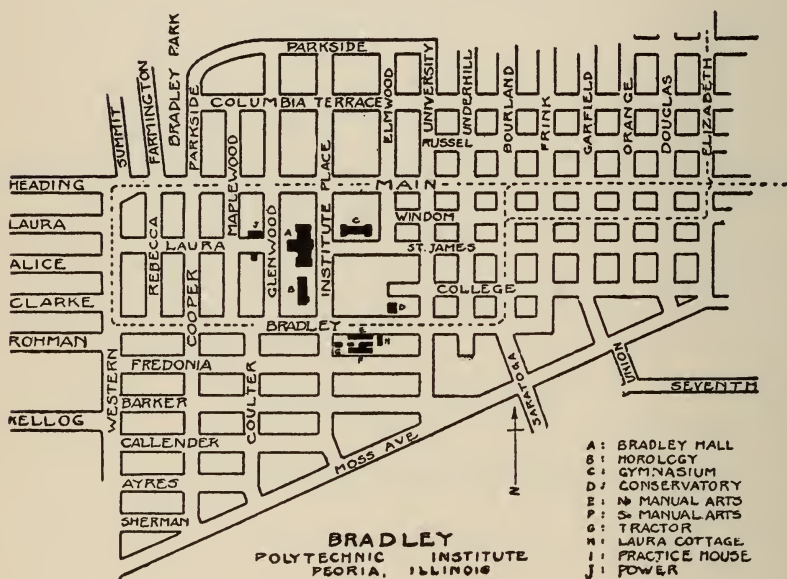
PEORIA, ILLINOIS
MAY, 1922

Entered at the Post Office at Peoria, Illinois, as second-class matter, April 26, 1918.

Acceptance for mailing at special rate of postage provided for in Section

1103, Act of October 3, 1917, authorized on July 5, 1918.

A SECTION OF THE WEST BLUFF, SHOWING LOCATION OF THE BRADLEY CAMPUS



The Bradley Campus is located on the West Bluff at Institute Place, between Main Street and Bradley Avenue. It is reached from any depot by taking a street car marked either "M" (Main), or "B" (Bradley). On either line leave the car at Institute Place. The street car route is shown by the dotted lines.

The main building, Bradley Hall, and the Horological Building, face Institute Place between Main Street and Bradley Avenue. The group of buildings devoted to the Manual Arts and Vocational Work are located on Bradley Avenue. The two athletic fields lie one to the North and the other to the South of the Gymnasium. The Bradley Avenue cars will stop in front of the Conservatory of Music (D). The business office which includes the book store, is at the corner of Main and Institute Place.

The offices at Bradley Hall, Horological Building and the South Manual Arts Building are open each week-day from 8 until 5 o'clock with the exception of Saturday afternoon.

INSTITUTE CALENDAR FOR 1922-1923

September 13.....	Wednesday.....	First Semester Begins
October 3.....	Tuesday.....	Evening School Begins
October 8.....	Sunday.....	Founder's Day
November 4.....	Saturday.....	Home Coming
November 30, Dec. 1,	Thursday and Friday.....	Thanksgiving Holidays
December 9.....	Saturday.....	Athletic Banquet
December 20.....	Wednesday.....	Last Day Before Christmas Recess
January 3.....	Wednesday.....	First Day After Christmas Recess
February 2.....	Friday.....	First Semester Ends
February 5.....	Monday.....	Second Semester Begins
February 22.....	Thursday.....	Washington's Birthday
March 23.....	Friday.....	Last Day Before Spring Recess
April 2.....	Monday.....	First Day After Spring Recess
April 28.....	Saturday.....	Interscholastic
May 30.....	Wednesday.....	Memorial Day
June 8.....	Friday.....	Open Night
June 15.....	Friday.....	Convocation Day
June 18.....	Monday.....	Summer Session Begins

1922-1923

JULY 1922							NOVEMBER							MARCH							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
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2	3	4	5	6	7	8	5	6	7	8	9	10	11	—	4	5	6	7	8	9	10
9	10	11	12	13	14	15	12	13	14	15	16	17	18	—	11	12	13	14	15	16	17
16	17	18	19	20	21	22	19	20	21	22	23	24	25	—	18	19	20	21	22	23	24
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AUGUST							DECEMBER							APRIL							
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13	14	15	16	17	18	19	10	11	12	13	14	15	16	—	15	16	17	18	19	20	21
20	21	22	23	24	25	26	17	18	19	20	21	22	23	—	22	23	24	25	26	27	28
27	28	29	30	31	—	—	24	25	26	27	28	29	30	—	29	30	—	—	—	—	—
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SEPTEMBER							JANUARY 1923							MAY							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
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10	11	12	13	14	15	16	14	15	16	17	18	19	20	—	13	14	15	16	17	18	19
17	18	19	20	21	22	23	21	22	23	24	25	26	27	—	20	21	22	23	24	25	26
24	25	26	27	28	29	30	28	29	30	31	—	—	—	—	27	28	29	30	31	—	—
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OCTOBER							FEBRUARY							JUNE							
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8	9	10	11	12	13	14	4	5	6	7	8	9	10	—	3	4	5	6	7	8	9
15	16	17	18	19	20	21	11	12	13	14	15	16	17	—	10	11	12	13	14	15	16
22	23	24	25	26	27	28	18	19	20	21	22	23	24	—	17	18	19	20	21	22	23
29	30	31	—	—	—	—	25	26	27	28	—	—	—	—	24	25	26	27	28	29	30
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TRUSTEES

JOHN M. NIEHAUS, <i>President</i>	Peoria
SAMUEL D. WEAD, <i>First Vice-President</i>	Peoria
ZEALY M. HOLMES, <i>Second Vice-President</i>	Mossville
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ROSS S. WALLACE.....	Peoria
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<i>Farms</i>	MESSRS. MACCLYMENT, HOLMES, THOMAS

“The objects for which this corporation is formed are to organize and maintain forever a school for the education of young people of both sexes in all the practical and useful arts, science and learning usually taught in polytechnic schools, including a department of ethics in which instruction shall be given in the principles of morality and right living as exemplified in the life and teachings of Jesus Christ; and so far as the resources of the Institute shall warrant, there shall be added such courses of study and means of instruction in science, literature and art, as may be deemed advisable by the Trustees; but the chief aim of the Institute shall be to furnish its students with the means of living independent, industrious and useful lives by the aid of a practical knowledge of the useful arts and sciences.”

HISTORICAL STATEMENT

BRADLEY POLYTECHNIC INSTITUTE was founded by Mrs. Lydia Bradley in memory of her deceased husband and children. A charter was secured in the fall of 1896. On April 10th of the following year, work was begun upon two buildings, Bradley Hall devoted to general education and Horology Hall, giving instruction in Watchwork, Jewelry, Engraving and Optics. Regular school work was begun on October 4, 1897. The death of Mrs. Bradley occurred on January 16, 1908, just after the close of the first decade in the history of the Institute. Provision had been made in her will for the permanent endowment of the institution which she had founded.

In 1904 a Station of the United States Weather Bureau was established at the North end of the campus. During the year 1908-9, a gymnasium building was erected, containing a gymnasium for men and also one for women, each with complete equipment. In 1911 a dwelling house belonging to the estate was devoted to the uses of the Home Economics Department as a "Practice House." During the summer of this year two large factory buildings on Bradley Avenue, adjoining the campus, were remodeled for the use of the Manual Arts Department, and a large Power Plant furnishing heat and power for all buildings was begun. In 1918 two buildings were erected for the use of the Automobile and the Tractor Departments. The Peoria Musical College was made a part of the Institute in June, 1920, under the title "The Bradley Conservatory of Music." This department now occupies a building suited to its needs on Bradley Avenue.

At its founding Bradley Institute, besides the Horological Department, offered four years of academy and two years of college work. The College courses were classed under four groups—Science, Literature, Classics, Engineering. A great variety of opportunity was afforded for those interested in Home Economics, Manual Training, or various forms of shop work designed for vocational training. From time to time notable changes and additions in the curriculum have been made—teacher training courses in Manual Training and Home Economics, covering either two or four years of college work, the latter giving the B. S. degree; a Summer School, the Evening Classes, a Vocational School, an Automobile School, a winter course in the Tractor, and the Conservatory of Music. In 1920, due to the generous support of Peoria citizens and present and former students of the Institute, many new general college courses were added, leading to the A. B. and B. S. degrees. The Academy was dropped at the close of the school year 1921-22

The United States Government made important use of the Institute during the war. An Army School for Mechanics, Camp Bradley, was established in April, 1918. Four successive detachments of from 300 to 500 men were stationed at Bradley for intensive training covering in each case an eight weeks' period.

Automobile Mechanism, Blacksmithing, Machine Shop, Carpentry, Instrument Repair, Practical Electricity, Gunsmithing, Lens Grinding, and the Tractor were the subjects taught. In September, 1918, a unit of the S. A. T. C. was added. The soldiers were quartered in the Gymnasium and in barracks erected for that purpose. Temporary changes were made in other buildings to meet the need. The government was most cordial in its appreciation of the effective work done at Bradley.

Since the founding of the Institute in 1897, many thousand young men and young women have enjoyed its privileges. Its graduates already number more than a thousand and may be found actively engaged in helpful work in practically every state of the Union.

LOCATION

Bradley Institute is located at the western edge of the City of Peoria in one of its best residence districts. It occupies an attractive campus of about 25 acres.

Peoria is a prosperous city of about 80,000 inhabitants and is the center of a much larger population. It is well fitted to be the location of college and vocational training by reason of its situation—almost at the center of the great state of Illinois and in a rich farm district,—its size, the number and variety of its manufactories, the unusual purity of its water supply, its excellent libraries, newspapers, and schools. It presents remarkable advantages of railway and traction service. In short, it offers the benefits of a large city and few, if any, of its disadvantages.

FACULTY OF THE SCHOOL OF ARTS AND SCIENCE

FOR THE YEAR 1921-1922

OFFICERS OF INSTRUCTION

THEODORE CHALON BURGESS, Ph. D., *President.*

A. B., Hamilton College, 1883; A. M., *ibid.*, 1886; Ph. D., University of Chicago, 1898; Bradley Institute since 1897.

CHARLES TRUMAN WYCKOFF, Ph. D., *Professor of History.*

A. B., Knox College, 1884; A. M. *ibid.*, 1887; Ph. D., University of Chicago, 1897; Bradley Institute since 1897.

CLARENCE ELMER COMSTOCK, A. M., *Professor of Mathematics.*

A. B., Knox College, 1888; A. M., *ibid.*, 1891; graduate study Johns Hopkins; University of Chicago; Bradley Institute since 1897.

WALES HARRISON PACKARD, Ph. D., *Professor of Biology.*

B. S., Olivet College, 1894; Ph. D., University of Chicago, 1908; Bradley Institute since 1898.

GEORGE CROMWELL ASHMAN, Ph. D., *Professor of Chemistry.*

B. S., Wabash College 1895; M. S., University of Chicago, 1905; Ph. D., *ibid.*, 1908; Bradley Institute since 1902.

ALBERT FREDERICK SIEPERT, B. S., *Professor of Industrial Education.*

Graduate Bradley Institute, 1908; Stout Institute, 1910; B. S., Columbia University, 1913; graduate study Columbia University and University of Chicago; Bradley Institute since 1913.

VERNE FRANK SWAIM, Ph. D., *Professor of Physics.*

B. S., Earlham College, 1909; Ph. D., University of Chicago, 1914; Bradley Institute since 1913.

LEROY P. ELLIOTT, A. M., *Professor of Vocational Courses.*

A. B., University of Iowa, 1911; A. M., Columbia University, 1916; Bradley Institute since 1919.

GERALDINE SARAH HADLEY, A. M., *Professor of Home Economics.*

A. B., Earlham College, 1906; graduate Bradley Institute, 1913; A. M., Columbia University, 1920; Bradley Institute since 1920.

ETHEL HELEN LYONS, A. B., *Assistant Professor of Modern Language.*

A. B. Radcliffe College, 1907; Graduate study University of Berlin, Paris, Cornell University; Bradley Institute 1909-12, and since 1918.

EMIL A. JOHNSON, A. M., *Assistant Professor of Manual Arts.*

B. S., St. Olaf College, 1906; A. M., University of Minnesota, 1909; Graduate Stout Institute, 1913; Bradley Institute since 1913.

GEORGIA ETHELTON HOPPER, Ph. M., *Assistant Professor of Modern Language*

A. B., University of Illinois, 1898; Ph. M., University of Chicago, 1904; Graduate study at the Sorbonne and at the University of Chicago; Bradley Institute since 1913.

MAJOR EARL WHARRY, B. S., *Assistant Professor of Mechanical Drawing.*

B. S. (Mechanical Engineering), University of Wisconsin, 1905; Bradley Institute since 1916.

CECIL MELNOTT HEWITT, B. M. E., *Assistant Professor of Automobile.*

B. M. E., Iowa State College, 1909; Bradley Institute since 1917.

JENNIE M. CONSTANCE, M. A., *Assistant Professor of English.*

Ph. B., Hamline University, 1909; M. A., Columbia University, 1917; Bradley Institute since 1919.

MARY GERTRUDE HARVEY, B. S., *Assistant Professor of Chemistry.*

B. S., Northwestern University, 1912; Graduate study University of Chicago; Bradley Institute since 1917.

JOSEPH V. HANNA, A. M., *Assistant Professor of Education.*

Ph. B., University of Chicago, 1919; A. M., *ibid.*, 1920; Bradley Institute since 1920.

CLARENCE WESLEY SCHROEDER, A. M., *Assistant Professor of Political Science and Sociology.*

A. B., Southwestern College, 1913; A. M., University of Kansas, 1914; Bradley Institute since 1920.

LOYAL GARIS TILLOTSON, Ph. B., *Assistant Professor of Business Administration.*

Ph. B. (School of Commerce and Administration) University of Chicago, 1914; Graduate study Northwestern University; Bradley Institute since 1920.

ALMA LONG, B. S., *Assistant Professor of Domestic Art.*

B. S., Columbia University; Bradley Institute since 1921.

ALFRED JAMES ROBERTSON, A. B., *Assistant Professor of Physical Education.*

A. B., University of Montana, 1916; Bradley Institute since 1920.

LILLIAN MELL GUINN, Ph. B., *Librarian.*

Ph. B., Cornell College, 1908; Library School, University of Illinois; Bradley Institute since 1916.

SARAH ELSIE POTTER, *Manager Laura Cottage and the Cafeteria.*

Graduate Bradley Institute, 1913; Student Teachers College; Bradley Institute since 1919.

ANNA JEWETT LE FEVRE, *Recorder.*

Secretary to the Dean, School of Education, University of Chicago, 1902-1912; Bradley Institute since 1912.

ADELAIDE MICKEL, *Instructor in Drawing.*

Graduate Chicago Art Institute, 1900; Student School of Education, Chicago, and Harvard University, summers; Bradley Institute since 1901

HARRY HURFF, *Instructor in Woodworking.*

Student Bradley Institute 1897-9; Bradley Institute since 1912.

LENA MAY BUCKEY, A. B., *Instructor in Latin.*

A. B., Ohio Wesleyan, 1909; Bradley Institute since 1917.

W. ROSS MARVIN, A. B., *Instructor in English*

A. B., Oberlin, 1917; Bradley Institute since 1919.

MARTHA B. HOBSON, A. M., *Instructor in English.*

A. B., Bryn Mawr, 1914; A. M., University of Chicago, 1918; Bradley Institute since 1920.

LUELLA KNIGHT, Ph. B., *Instructor in Household Arts.*

Ph. B., University of Chicago, 1917; Graduate Study, Summer, University of Wisconsin; Bradley Institute since 1920.

LEATA A. JONES, B. S., *Instructor in Household Science.*

B. S., Columbia University, 1920; Bradley Institute since 1920.

ERIC GEORGE SHALKHAUSER, A. B., *Instructor in Physics.*

A. B., University of Wisconsin, 1918; Graduate study, *ibid.*, Bradley Institute since 1920.

PAULINE BUSWELL, A. B., *Instructor in Physical Training.*

A. B., Oberlin College, 1920; Bradley Institute since 1920.

FRED E. DACE, B. S., *Instructor in Electrical Maintenance.*

B. S., University of Illinois, 1914; Bradley Institute since 1921.

PAULINE GAUSS, A. B., *Assistant Librarian.*

A. B., University of Illinois, 1919; Bradley Institute since 1921.

ARTHUR E. GAUT, M. S., *Instructor in Mathematics.*

B. S., Grove City (Penn.) College, 1914; University of Chicago, M. S., 1921; Bradley Institute since 1921.

MERCEDES MANOSALVA A., A. M., *Instructor in Modern Language.*

B. H., University of Chile, 1915; Graduate study University of Chile, 1915-1918; A. B., University of Indiana, 1920; A. M., University of Wisconsin, 1921; Bradley Institute since 1921.

MAX K. TEACH, B. A. E., *Instructor in Architectural Drafting.*

B. A. E., Ohio State University; Bradley Institute since 1921.

NADINE V. SHEPARDSON, *Instructor in Public Speaking.*

Graduate School of Speech, Northwestern University, 1921; Bradley Institute since 1921.

RUDOLPH FAHL, B. P. E., *Instructor in Physical Training.*

B. P. E., International Y. M. C. A. College, 1921; Bradley Institute since 1921.

WILLIAM WOELFLE, *Instructor in Art.*

Student five years National Academy of Design, New York City; one year at New York School of Art; Experience in teaching and in commercial art; Bradley Institute since 1921.

PHILIP BECKER, JR., *Instructor in Metalworking.*

Graduate Bradley Institute, 1918; Bradley Institute since 1918.

WILLIAM EDWIN ALLEY, *Instructor in Machine Shop.*

Student University of Illinois, 1900-1903; Bradley Institute since 1920.

ASA CARTER, *Instructor in the Automobile.*

Bradley Institute since 1920.

JAMES EDWARD McMEEN, *Instructor in Electricity.*

Student Wabash College; Bradley Institute since 1918.

EDWARD J. SCHLEGEL, *Instructor in Mechanical Drawing.*

Student University of Wisconsin; Practical experience in Electricity and Drafting; Bradley Institute since 1921.

FRED E. TRAVIS, *Instructor in Metalwork.*

Extended Practical experience in Metalwork.

WALTER E. KASTIEN, *Instructor in Tractor. (Winter).*

Former student at Bradley Institute; Practical experience in Metalwork; Bradley Institute since 1921.

GEORGE WASHINGTON BRICKNER, *Instructor in Vulcanizing. (Winter and Spring).*

Bradley Institute since 1919.

MERTON LEONARD FULLER, M. Di., A. M., *Lecturer in Meteorology.*

M. Di., Iowa State Teachers' College, 1898; A. M., St. Lawrence University, 1907.

OFFICERS OF ADMINISTRATION

THEODORE C. BURGESS.....	President
CLARENCE E. COMSTOCK.....	Secretary of the Faculty
ANNA JEWETT LEFEVRE.....	Recorder
FRANKLIN STEAD.....	Director of Conservatory of Music
ALBERT F. SIEPERT.....	Director of Evening and Summer Schools
ETHEL H. LYONS.....	Dean of Women
ALLEN T. WESTLAKE.....	Dean of Horology
ALBERT F. SIEPERT.....	Dean of Teacher Training
GERALDINE S. HADLEY.....	Dean of Home Economics
LEROY P. ELLIOTT.....	Dean of Vocational Courses
VERNE F. SWAIM.....	Dean of Science Division
ETHEL H. LYONS.....	Dean of Literature Division
EMMA T. SCHMIDT.....	Secretary to the President
VIRGINIA ARMFIELD.....	Manual Arts Office
GEORGE R. MACCLYMENT.....	Business Manager
CLARA E. COMSTOCK.....	Secretary to Business Manager
J. L. CADWALLADER.....	Cashier
HOMER M. BOTTS.....	Superintendent of Power
S. D. LYMAN.....	Superintendent of Grounds and Buildings
WILLIAM E. KRIEGER.....	Assistant to Business Manager
DON E. KARR.....	Auditor
CYRUS M. AVERY.....	Purchasing Agent
HATTIE L. POTTER.....	Bookkeeper
ELSIE S. THIELBAR.....	Stenographer

DIVISIONS OF THE INSTITUTE

The work of the Institute may be grouped under six main divisions which are described briefly below.

- 1—THE COLLEGE.
- 2—VOCATIONAL OR TRADE COURSES.
- 3—THE CONSERVATORY OF MUSIC.
- 4—THE HOROLOGICAL DEPARTMENT.
- 5—EVENING CLASSES.
- 6—SUMMER SCHOOL.

I. THE COLLEGE

ADMISSION. Students wishing to enter for regular college work should present at least 15 units of high school credit. Three units are required in English, two in Mathematics and one in Science. The remaining nine units are elective but should be from the list approved by the University of Illinois and other standard colleges.

An official list of high school credits should be sent to the Institute as soon as possible after graduation. The catalog contains a blank (last page of this bulletin) which may be used for this purpose, or one may be obtained by addressing the Institute.

A special class in English will be organized for those who need additional preparation. Assignment to this class will not prevent the student from taking English II also the same semester.

Those who enter with only one year of Algebra and wish to go on with College Mathematics must take also a two hour course in Advanced Algebra.

Special students may be admitted to those classes for which they are prepared.

For admission to Vocational Courses, see Page 12.

ADVANCED STANDING. Applications for admission to advanced standing in college must meet the requirements for entrance and be accompanied by an official record of the college work taken elsewhere. A letter of dismissal should also be sent.

REQUIREMENTS FOR GRADUATION—DEGREES. The College confers two degrees: Bachelor of Arts, Bachelor of Science. A candidate for either of these degrees must complete successfully at least 120 semester hours. Fifteen semester hours is the minimum assignment for a college student taking full work. Residence for at least two semesters, or its equivalent in summer sessions, is required.

To insure a well balanced course and at least a slight acquaintance with certain fundamental lines of study, the following distribution requirements are made of all candidates for a degree. Hygiene and Physical Training may not be counted toward the 120 semester hours:

- 1—History, 6 semester hours.
- 2—English, 6 semester hours.
- 3—Science, 6 semester hours.
- 4—Sociology, 3 semester hours.
- 5—Psychology, 3 semester hours.
- 6—Public Speaking, 2 semester hours.
- 7—Hygiene, 1 semester hour.
- 8—Physical Training, 4 semester hours.

In addition to the above, candidates for the degree of A. B. must present four years of Foreign Language (in high school or college) of which at least one year must be taken in the college, and two years must be in the same language.

Not more than twenty hours will be accepted toward the A. B. degree from (1) Drawing and Design, (2) Music, (3) Home Economics, (4) Business Administration, and the total combined credit from these departments must not exceed thirty hours. The maximum combined credit allowed for any one year is ten semester hours.

College students at Bradley have the privilege of taking work for credit in the Conservatory of Music. Credit in music not to exceed 20 semester hours is allowed toward the A. B. degree. Not more than 8 may be allowed for practical music and then only when one and one-half times as much credit has been secured in theoretical music.

Members of Bradley Chorus or Glee Clubs who complete the work satisfactorily in any year may upon recommendation of the Musical Director receive one semester hour credit. This may not be included in the 120 semester hours required for a degree.

GROUPS. The courses of study offered in the college division of the Institute are classified into six groups. To guard against scattering and lack of continuity, every candidate for graduation must complete in addition to the distribution requirements stated above, 30 semester hours in one of the following groups.

- 1—Language, Literature, Art.
- 2—History, Economics, Political Science, Sociology.
- 3—Mathematics, Science.
- 4—Home Economics (Includes Teacher Training courses) see page 31.
- 5—Manual Training (Includes Teacher Training courses) see page 36.
- 6—Business Administration and Economics.

The A. B. degree is given to those whose work lies chiefly in groups 1, 2 or 3.

The B. S. degree is given to those whose work lies chiefly in groups 4, 5 or 6.

A certificate is granted to those who complete a two-year course for teachers of Home Economics, or Industrial Arts.

An appropriate certificate is given to those who complete any one of the vocational courses, and to those attending summer school or evening classes.

GRADES. Grades in each subject are shown by letters, A indicating high distinction, and D, the lowest passing grade. Each grade carries with it certain grade points. In order to graduate each student must average for his course at least 2.5 grade points, a total of 300.

TRAINING FOR CHARACTER. It is the constant aim to develop self-reliance and character in every student. Strict attention to work and courteous, honorable conduct is expected. The Institute is distinctly Christian and strictly non-sectarian. A Chapel Service is a regular part of the school work. It is designed to afford an opportunity for ethical instruction and to assist in promoting unity in the Institute. Musical programs and addresses by prominent professional and business men on practical topics are sometimes presented at this service.

II. VOCATIONAL OR TRADE COURSES

THE VOCATIONAL OR TRADE COURSES are designed primarily to meet the demand made by men who expect to enter immediate industrial employment. The endeavor is made to give the essential elementary training in the shop work, drawing, and mathematics which is necessary for the man who expects to understand his trade. As the time for completion of this work is in most cases limited, the work is confined to the practical. No attempt is made to introduce the cultural elements. Special circulars describing these trade courses may be had upon application. The following courses are offered:

(1) *Machine Drafting*. This work is intended as a foundation for a man expecting to enter directly into drafting or designing. The work is given in drafting and in the trade subjects with which drafting has to deal.

(2) *Architectural Drafting*. An attempt is made to give the necessary shop experience along with training in drafting to allow the student to enter the architectural drawing room upon completion of the course.

(3) *Woodworking*. The course for woodworkers includes the elements of house carpentry, millwork, cabinetmaking and use of wood working machinery.

(4) *Machine Shop Practice*. Along with extensive practice in the machine shop, work is given in the allied subjects of drafting, forging, patternmaking, and shop mathematics.

(5) *The Automobile*. An all around training, fitting for positions in the manufacture, repair, sale and running of automobiles; includes Automobile Mechanism, Vulcanizing, Brazing, Soldering and Radiator Work, Automobile Engines, and Electricity as applied to the Automobile, Study of the Tractor, Machine Shop Practice and Garage experience. The automobile work occupies two buildings of its own.

(6) *Electricity*. Preparing for positions in House Wiring, Telephone Work, Installing and Running Electrical Machinery, Practical Testing and Electrical Manufacturing, General Principles and Laboratory work in Electricity, study of Motors and Generators, Wiring, Armature Winding, Machine Shop work, Shop Mathematics, Practical Experience in construction work and testing.

(7) *Horological Department*. This department gives practical instruction in Watchwork, Engraving, Jewelry and Optics. It is open throughout the year, and students can enter at any time. Catalogue will be sent upon request.

It is intended that the Vocational courses should be particularly for the use of students who have a definite trade objective in view. The large majority of students entering this work have definitely made up their mind as to the trade they expect to follow and the class of work is so arranged that they may receive the training which will best fit them in the shortest possible time for that occupation. A record of the attendance and grades is kept by the school and furnishes a basis for recommendation to any prospective employer that the student may have.

Special Bulletins have been prepared for these Vocational Courses. Send for one or more of them. A class schedule will be found on page 39.

III. THE CONSERVATORY OF MUSIC

(See Page 59 and Special Catalogue)

IV. THE HOROLOGICAL DEPARTMENT

(See page 61 and separate catalogue)

V. EVENING CLASSES

The evening Classes give instruction in practical work and are intended especially for workers in shops and factories who cannot take advantage of day schools. The classes are in session from October to April, meeting on two evenings each week. Special bulletins are issued early in September.

The following courses are usually given, new courses will be offered to meet the demand whenever twelve or more persons apply.

Woodworking and Patternmaking, Machine Shop, Mechanical and Machine Drawing, Blue Print Reading, Jewelry, Engraving, Architectural Drafting, Chemistry, Cooking, Sewing, Study of the Automobile (Electricity, Gas Engines, Batteries), Landscape Gardening, Forging, Furniture Making, Freehand Drawing, Practical Electricity, Shop Mathematics, Accounting.

VI. SUMMER SCHOOL

The Summer Session for 1922 will offer a great variety of courses in Manual Training, Home Economics, general college courses, and also work especially intended for teachers in the grades or in rural schools. Send for special bulletin. Summer credits may be applied toward a degree.

TRAINING FOR BUSINESS AND PROFESSIONS

Students who wish to plan their college work with a view to some special occupation should note the following suggestions:

1—BUSINESS ADMINISTRATION. A thorough course of college rank is given covering lines helpful to one expecting to enter business or some position in the commercial world. Courses are offered in such subjects as Accounting, Economics, Salesmanship, Business Law, and the like. (See Department statement, page 24).

2—ENGINEERING. The Freshman and Sophomore years are given in the most thorough manner. Those who complete this work receive two years credit at the best engineering schools. The equipment for engineering work at Bradley is very complete and the teaching force unusually strong. The following are suggested programs:

CURRICULUM IN ELECTRICAL OR MECHANICAL ENGINEERING

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
Engineering Drawing 13	4	Descriptive Geometry 14	4
Chemistry 11	5	Chemistry 12	5
Language 11	5	Language 12	5
Mathematics 11	5	Mathematics 12	5
Physical Training	1	Physical Training	1

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
Pattern Shop 15	3	Forge 16	3
Physics 21	5	Physics 22	5
Mathematics 21	5	Mathematics 22	5
English 11	3	English 12	3
Physical Training	1	Analytic Mechanics 26	3
		Physical Training	1

By consultation with the Dean, slight changes may be made in this curriculum to meet the needs of those interested in other divisions of Engineering, e.g., Chemical, Ceramic, Civil, General Physics, etc.

CURRICULUM IN ARCHITECTURAL ENGINEERING

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
Engineering Drawing 13	4	Descriptive Geometry 14	4
Chemistry 11	5	Chemistry 12	5
Language 11	5	Language 12	5
Mathematics 11	5	Mathematics 12	5
Physical Training	1	Wood Construction M. Dr. 50	5
		Physical Training	1

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
Physics 21	5	Physics 22	5
Mathematics 21	5	Mathematics 22	5
English 11	3	English 12	3
History of Architecture 25	2	History of Architecture 26	2
Freehand Drawing 13	2	Freehand Drawing 14	2
Wood Construction M. Dr. 51	3	Analytic Mechanics 26	3
Physical Training	1	Physical Training	1

3—GENERAL CHEMISTRY.

CURRICULUM IN CHEMISTRY

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
Chemistry 11	5	Chemistry 12	5
English 11	3	English 12	3
Mathematics 11	5	Mathematics 12	5
Language	3	Language	3
Physical Training	1	Physical Training	1

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
Chemistry 21	5	Chemistry 22	5
Physics 21	5	Physics 22	5
Language	3	Language	3
Elective	3	Elective	3
Physical Training	1	Physical Training	1

4—PRE-MEDICAL COURSE. All the best medical schools now require two full years of general college training before students may enter a medical school. Some require three years. The courses called for by the Council on Medical Education are as follows: Chemistry, 12 semester hours; Physics, 8 semester hours; Biology, 8 semester hours; English, 6 semester hours; other non-science subjects, 12 semester hours. Sixty semester hours in all are required.

Other subjects suggested are:

Modern Language	Mathematics
Advanced Botany or Zoology	Psychology
Economics	History
Additional Chemistry or English	Sociology
Latin, Greek, Drawing	Political Science

This pre-medical work may be taken to the best advantage at Bradley. It will require two or three years dependent upon the requirements of the Medical School.

5—PRE-LEGAL COURSES. Two years of general college work is required for entrance to the better law schools. No set curriculum is established but the following lines of work are appropriate and helpful: English, Modern Language,

Latin, Public Speaking, Economics, American Government, Municipal Government, Introduction to Political Science, International Law, Sociology, various courses in History, Psychology.

6—TEACHING. Those who wish to teach in the grades or in high school may secure a State Teacher's certificate without examination by electing the necessary courses in the Department of Education.

Those interested in Manual Training and Home Economics will find detailed statements for their work on pages 31, 36.

The demand for teachers is far greater than the Institute can supply. Naturally no guarantee of a position can be given but the Institute authorities attempt to assist as effectively as possible in securing suitable positions.

7—AGRICULTURE. One year or more of the Science work and nontechnical electives belonging to an Agricultural Course may be taken at Bradley Institute.

8—SOCIAL SERVICE. There is a wide range of possibilities for well trained men and women in the realm of social work. Opportunities here are constantly increasing. Executives and secretaries and other social workers are constantly being sought. As a basis for the necessary specialized training, a number of general courses are prerequisite. Among the courses recommended for those who desire to specialize in this field are English, Biology, Modern Language, Public Speaking, Social Mathematics, Psychology, History, Political Science, Economics and Sociology.

EQUIPMENT

The Science Laboratories are located in Bradley Hall. They are equipped with everything that is required for elementary or advanced college work.

BIOLOGY makes use of two large laboratories, one for Physiology and Bacteriology; the other for Zoology, Embryology, and Histology. The lecture room and an office adjoin. The equipment is complete and up-to-date.

CHEMISTRY occupies laboratories for elementary and advanced courses accommodating about 150 students. There is also a large lecture room; a balance room, chemical library and reading room; and two store rooms. Every facility is offered for effective work.

PHYSICS occupies three laboratories. It also has a large work shop. The department is equipped to give instruction in a great variety of courses,—(1) College work for general students and for engineers; (2) physics as applied to the automobile, and (3) practical electricity. The apparatus is equal in extent and variety to that found in our large universities. Many new and very valuable instruments have been added during the past year.

HOME ECONOMICS has exclusive use of the third floor of Bradley Hall. The rooms are unusually pleasant in location and arrangement. For Domestic Science there is a very large lecture room with two cooking laboratories. One of these has a comparatively inexpensive form of equipment. The other is thoroughly complete and up-to-date, including a gas range for every two girls. There are also appropriate offices.

Sewing is provided with laboratories, office and fitting rooms. It is thoroughly equipped for elementary and advanced work in Clothing and also for Millinery and Textiles.

SHOPS AND DRAWING ROOMS are located on Bradley Avenue and occupy several large buildings especially adapted to their needs. Machine Shop, Sheet Metalwork, Forging, Foundry, Patternmaking, Millwork, the Automobile, the Tractor, Freehand, Architectural and Mechanical Drawing, all are appropriately housed and provided with complete equipment.

LIBRARY. The general library occupies rooms on the main floor of Bradley Hall and contains about fourteen thousand volumes to which the students have free access. It is primarily a reference library, and is supplemented by six department libraries, namely, Chemistry, Mathematics, Physics, Biology, Modern Language, and Home Economics, which are shelved adjacent to lecture rooms where they will be of the utmost service. Books belonging to other departments such as History, Manual Arts, English, etc., are housed in the general library. The books are classified by the Dewey decimal system and the author and title card catalogs render all books easily accessible. The library receives one hundred and twenty American and European periodicals. Many of these are bound each year; sets of Readers' Guide Index to periodicals make these files available. The Library is open daily from 8 a.m. to 5 p.m. except Saturday, when it is only open in the forenoon. It is also open certain evenings from 7 to 9 p.m.

Students and faculty of Bradley Institute have also free use of the Peoria Public Library. This Library contains 150,000 volumes, has an extensive periodical file, and excellent reference department, and is a depository of public documents.

THE GYMNASIUM BUILDING is constructed of Bedford stone with vitrified brick finish on the interior. It is located between the large Athletic fields. To the north lie the tennis courts and hockey field. On the south, an iron fence encloses the quarter-mile cinder track, two baseball diamonds, the football field, jumping and vaulting pits. The building is one of the largest and best equipped in the state. On the ground floor are to be found bowling alleys, pool tables, a swimming pool, showers, and lockers. On the second floor besides the necessary offices are the large gymnasium for men, with cork running bed, indoor bleachers, gymnasium for women, a club room, and a lecture room. Each gymnasium is fully equipped with apparatus. The third floor contains a large social hall with a fire-place at one end; a kitchen adjoins. The social hall is invaluable in the social life of the Institute.

MUSEUM. On the fourth floor of Bradley Hall is placed the museum containing the mounted birds, mammals, and other biological specimens, and the herbarium presented to the Institute by the Peoria Scientific Association. To this has been added collections of shells and corals, the gift of Peoria citizens, and a collection of insects from the University of Illinois. A herbarium was presented by Miss Heading of Peoria and the Institute was recently made the recipient of a fine collection of relics and curios gathered in the Philippines and Mexico by General John Green Ballance. Other valuable collections are soon to be placed at the Institute.

UNITED STATES WEATHER BUREAU. During the summer of 1904 the United States Government erected a Weather Bureau Station at the north end of the campus on a lot granted by the Institute. This is under charge of Merton L. Fuller. Daily bulletins and weather maps are sent out from the station. Special lectures are given by Mr. Fuller to Institute classes.

THE NEEDS OF THE INSTITUTE

Bradley Institute offers a great variety of courses. Many of these involve unusual expense for equipment and maintenance. The income received from its endowment has been used with noticeable wisdom and efficiency. The time has come when this income is wholly inadequate. Increase in endowment and the erection and equipment of new buildings are necessary if the Institute is to do the work which naturally devolves upon it. It cannot otherwise render to Peoria, its home city, to the state and to the country, the service which may properly be expected of it.

A few of the more pressing needs may be mentioned.

1. Additional Endowment—The promise of \$150,000 has been secured conditioned upon the raising of \$350,000 more. A much larger sum is needed to meet pressing needs. The income from the new endowment would be used to round out and render still more effective the work already established, to increase teachers' salaries, and to add some new lines of work long needed.

2. A Dormitory for Women—This should be an attractive building, large enough to care for about 60. It should contain an infirmary. Plans were drawn for such a building several years ago but the Institute has no funds with which to erect it. A dormitory is a form of gift most attractive to a donor. It would also serve the Institute's greatest need in the way of buildings.

3. Since the founding of the Institute, the Library has been housed at the south end of Bradley Hall in space which was originally intended for class rooms. For years this arrangement has been inadequate. The recent increase in College work makes the situation much more acute. The space is needed for class rooms and the Library should have a home of its own—a substantial building, beautiful in architecture. It should contain the library, an art gallery, a museum. The Institute has already the large museum of the Peoria Scientific Association, the General Ballance Collection, and various other valuable gifts. Several other collections are soon to be transferred. There should also be a permanent fund for purchase of library books.

4. A Building for the Conservatory of Music—The growth of the Conservatory has been rapid. It has already outgrown its quarters. It should have a new building specially designed for its uses.

5. A Dormitory for Men—This should include a Commons where Bradley students can find healthful meals at reasonable cost.

6. A bell tower with chimes to ring the hours would form a very useful and attractive feature of the Campus.

7. Ornamental Entrance Gates—The memorial gates forming an entrance to the Campus of some of our older institutions present one of the most attractive features. It is an appropriate memorial gift. The Institute grounds afford several excellent locations.

8. Scholarships—One of the great needs at Bradley is a series of scholarships to provide part or all of the tuition of worthy students who need help. Even a small gift of \$1,000, \$5,000, \$10,000, has its important value. The good which it does is immediate and tangible and is repeated each year indefinitely.

9. Similar to the above is a loan fund of a few thousand dollars. A student in need of temporary financial help would be allowed to borrow from the fund to repay at a fixed date after he has become established in earning power.

10. Endowment of Professorships or special lines of work, or hospital and medical care.

11. Teachers' Retiring Fund—A fund is needed to enable the Institute to take advantage of the Carnegie Annuity System, or to establish a special plan of its own.

FORM OF BEQUEST

I hereby give, devise and bequeath to Bradley Polytechnic Institute, Peoria, Illinois, the sum of _____ dollars.

If property other than money is willed the form should be changed to agree.

BOARD AND LODGING

LAURA COTTAGE, a dormitory for girls, faces the campus. It has rooming accommodations for twenty and affords an excellent home for women, especially planned for the younger students. All young women rooming outside Laura Cottage are expected to take their meals there unless individually excused by the Faculty Committee in charge. The dining room has a seating capacity of about seventy-five. Each student must provide towels, six table napkins, napkin ring, and all bedding necessary for a single bed, (30-inch cot). Each girl is expected to bring two pairs of fabric curtains, two yards in length when finished (window 30 inches); must also furnish dresser scarfs, ordinary size. House fee \$3.00 a semester. A deposit of \$10.00 is required when a room is reserved; a return is made at the end of the year, or will be refunded if notification is given before August 1st if an applicant wishes to cancel her reservation. No student will be admitted for less than a full semester. The Institute reserves all rights in connection with the assignment of rooms and the termination of their occupancy.

ROOMS. All rooming arrangements must be approved by the Recorder. A list of suitable rooms is kept on file in the Recorder's Office.

ROOMS AND BOARD FOR MEN. The Institute also provides boarding accommodations for men. Rooms are to be obtained from the list in the Recorder's Office.

DRESS. The Institute disapproves of extravagant or elaborate dressing and asks the co-operation of parents in establishing a sentiment in favor of plain, simple and appropriate dress for school work and school function.

EXPENSES

Tuition and all other fees are payable in advance at registration. The Institute reserves the right to increase these charges in case of failure to pay in advance. The charge for tuition is \$50.00 for each semester. Each student pays also each half year, a semester fee of \$5.00. This entitles him to a locker in the Gymnasium, instruction in Physical Training, the use of the Library, a ticket admitting him to all local athletic contests held under institution management.

There are also fees for certain shop and laboratory courses to cover the per capita cost of material used by students taking these courses.

Biology, each five-hour course, \$4.00. Two or three-hour courses, \$3.00. Chemistry, each course, \$5.00.

HOME ECONOMICS. Foods, \$4.00; Nutrition, Table Service, Millinery, each \$2.00. Housewifery, Quantity Cooking, Home Nursing, Demonstration Cookery, Home Management, Dressmaking, Costume Design, Dressmodeling, each \$1.00.

Physics courses, \$1.00 to \$4.00. Vocational Courses, \$1.00 to \$3.00.

Shop courses, \$1.00 to \$3.00.

The Department statements (pages 22 to 59) indicate after each course the fee, if any.

Text books and other supplies may be secured at the book store.

STUDENT EMPLOYMENT. No student possessed of energy and purpose need fail of an education for lack of funds. The Institute in connection with its regular work, furnishes a good many opportunities for students to earn money with which to meet a part or all of their tuition. Application for such work should be made early.

There are also frequent requests for student help in homes and business places. Those who wish places to work for room and board can usually be accommodated.

The Institute does everything possible to assist students who wish to find opportunities to earn money outside of school hours.

SCHOLARSHIPS AND PRIZES

1. Two scholarships to the two graduates having the highest rank in each of the Peoria High Schools.

2. The Bradley Alumni Association has established a scholarship to be awarded to a student who combines scholarship and helpful participation in general school activities.

3. **THE B. AND M. SCHOLARSHIP.** A scholarship of fifty dollars, the gift of Mr. Jaques Bloom of the B. and M. Store, is awarded annually in the Department of Business and Economics to that student who at the end of his or her Freshman year has the highest record of scholarship in all first year courses of the General Business Curriculum.

4. **BEN HUR SCHOLARSHIPS.** Bradley Institute is one of the institutions which may be selected by those to whom Ben-Hur Scholarships are awarded. These scholarships were established by the Supreme Tribe of Ben-Hur, a fraternal beneficial society, in memory of David W. Gerard, the founder. They are worth \$500.00 a year and are given to members of the order strictly on merit after a competition in which class-room scholarship, school activities, social qualities and character are all considered. For further information write to Gilbert Howell, Secretary, Crawfordsville, Indiana.

5. **PRIZE IN CHEMISTRY.** The Scheele Memorial Medal. Awarded to the student who ranks highest in Chemistry. This prize is offered by Wm. V. Dufner, Ph. G., of Peoria, pharmacist, and is of solid gold, with a bas-relief of Carl Wilhelm Scheele, the illustrious Swedish apothecary and chemist (1742-1786).

6. **PRIZE IN ORATORY.** The University of Chicago Club of Peoria has established an oratorical contest, open to any college student at Bradley. The club furnishes two prizes—one of \$35.00, the other \$15.00. The finals are held during commencement week.

7. **STUDENT LOAN FUND.** The Institute has a fund from which loans may be made to students who need temporary help. This fund is in charge of a Faculty Committee.

STUDENT GOVERNMENT

The Council consists of sixteen students representing every section of the school, with an Advisory Board of four Faculty members. It has power to legislate subject to Faculty approval and is responsible to the Faculty for the regulation and administration of extra curricula activities not otherwise provided for.

The Non-resident College Women's Self Government Association consists of nine student members with an Advisory body of four Faculty members. The Association formulates and administers regulations concerning the problems peculiar to its members.

ORGANIZATIONS

THE ATHLETIC BOARD. Athletics are under direction of a board made up of members of the faculty and representatives elected from various divisions of the school, and one Alumni representative. Actions of the Board are subject to revision by the Faculty.

The Women's Athletic Association serves a similar purpose for young women.

ARCHITECTURAL CLUB. Organized in 1920. Meets frequently to discuss subjects of value to those interested in the Architectural profession.

ARTS AND CRAFTS CLUB holds monthly meetings for educational and social purposes.

THE COMMERCE CLUB. The aim of the Club is to bring the students of business together for the purpose of promoting a serious interest in business problems. Some prominent business man addresses the students at each meeting.

THE ENGLISH CLUB is designed to create greater interest in English Literature. A special theme is selected for each year. Its meetings are monthly.

THE FRENCH CLUB supplements the work of the class room in various ways, especially in giving opportunity for conversational French. Its meetings are held once a month.

THE HISTORY CLUB meets twice a semester to discuss current events, especially those having bearing on political, economic and social questions.

THE HOME ECONOMICS CLUB holds monthly meetings to promote the interests of the Home Economics students.

MASK AND GAVEL CLUB is an organization to promote the interests of drama and public speaking. Meetings are held monthly at which are given plays produced by members. The Club brings to Bradley an artist's course consisting of plays, readings, and lectures. Three one-act plays were presented in February, casts chosen from the members.

THE MATHEMATICS CLUB was organized in December, 1919, to promote greater interest in Mathematics. It meets the first Wednesday of each month.

PELLITE DESIDERIUM—"P. D. CLUB," is composed of girls whose homes are outside Peoria. Its name means "banish homesickness" and it meets for social purposes. One social activity for the benefit of the dormitory fund is sponsored each year.

THE GLEE CLUBS, directed by Ingenius Bentzar of the Bradley Conservatory, give training in singing, and in the interpretation of the best music. The Glee Clubs appeared at the Madison Theatre March 23, 24, 25.

THE BRADLEY CONSERVATORY CHORUS—The object of this choral organization is to acquaint the students with the best choral works. The Chorus is open to all students of the College who qualify for such work.

THE CONSERVATORY ORCHESTRA—Another organization with the same aim in view as the Conservatory Chorus—the interpretation of orchestral works.

THE FAELTEN CLUB of the Conservatory is an organization for the preparatory pupils enrolled in the Faelten course of study.

THE TECH is a weekly newspaper conducted by an editor, business manager, and associates. The editor and business manager are elected by the Council and personally assume all financial responsibility.

THE POLYSCOPE is an annual student publication reflecting the activities of the school for the current year. The Junior Class assumes responsibility for its publication.

THE CHRISTIAN ASSOCIATIONS. The Y. M. C. A. was organized in 1902, and the Y. W. C. A. in 1904. Both organizations prove important aids in promoting the best interests of the school.

THE ALUMNI ASSOCIATION for the present years has the following officers: President, George R. MacClyment '01; Vice President, Ruth Gordon '15; Secretary-Treasurer, Pauline Gauss '16.

DEPARTMENTS

As a rule, courses numbered 10 or below are vocational.

Those numbered from 11 to 20 are primarily for Freshmen; from 21 to 30 for Sophomores; and those above 30 for Juniors and Seniors.

As far as possible odd numbers are used for courses given in the first semester and even numbers for those given in the second semester.

When course numbers are connected by a dash, e.g., 11-12, it means that credit is not ordinarily given for the first semester only. The entire year must be completed to secure credit for either semester.

When a comma is placed between course numbers, e.g., 11, 12, it means that credit may be gained for either semester taken separately.

After each course in the department statements which follow, there is indicated the number of semester hours credit, the semester in which the course is usually given, and the fee, if any. The fee given is in each case for one semester.

The Institute reserves the right to withdraw any course which is not elected by at least three students. Some courses are given only in alternate years.

ANCIENT LANGUAGE

DR. BURGESS, MISS BUCKEY

Frequent use is made of illustrative material, such as photographs and lantern slides. Constant emphasis is laid upon the contributions of the Ancient Languages, especially Latin, to modern life.

11, 12. Cicero and Vergil. Five hours each semester.

A course designed especially for College students who enter with only two years of Latin and who would welcome the opportunity to continue the subject. The authors studied are two of the world's greatest literary men.

13, 14. Cicero, Terence, Livy, Horace. Five hours each semester.

The following authors are read: Cicero, *De Senectute*; Terence, *Phormio*; Livy, Book I and Selections; Horace, *Odes*.

31, 32. Tacitus and Selections. Three hours each semester.

Tacitus' *Germania* and *Agricola* will be read and selections from Horace's *Satires* and Cicero's *Letters*. The reading may be varied to meet the needs of the class.

17-18. A Beginner's Course in Greek. Five hours each semester.

ART

(See page 40)

AUTOMOBILE

(See page 42)

BIOLOGY

DR. PACKARD

The department aims to present both the practical and the important theoretical sides of Biology. The courses should meet the needs of the general student who wishes to secure the present day biological point of view, or to go into medical or related professional work.

11. Principles of Animal Biology. Five hours. First semester.

This course is designed to introduce the student to the fundamental principles and concepts in each of the major divisions of Biology. An introduction to the elementary facts of structure, physiology, embryology, genetics, classification, ecology and paleontology.

Laboratory study of typical invertebrate forms. Fee \$4.00.

12. Vertebrate Zoology and Comparative Anatomy.

Five hours. Second semester.

Principles of development, general structure and evolution of vertebrate animals. Comparative anatomy of systems of organs considered with regard to function and evolution.

Dissection of representative types. Fee \$4.00.

13. Heredity, Evolution and Genetics. Two hours. First semester.

A lecture course on the facts, theories and application of the science of genetics. A study of the history and principles of evolution and the theories which have been proposed to account for it.

14. Economic Ornithology. Two hours. Second semester.

A study of the bird's place in nature and its economic importance. Identification of the common birds of the vicinity, their seasonal distribution and food relations.

Two hours of field work each week under the personal direction of the instructor.

21. Human Physiology. Five hours. First semester.

The structure and functions of the human body and the processes by which its activities are maintained. Constant reference is made to the relation of these processes to the laws of health. Special attention is given to nutrition and other topics of interest to the student of household science. Fee \$4.00.

22. Bacteriology. Three hours. Second semester.

Introductory study of the bacteria yeasts and molds and their relation to fermentation, decay, and disease, including brief discussion of industrial and hygienic applications.

The laboratory work introduces general bacterial methods, preparation of culture, media and cultivation of bacteria; the bacterial examination of air, water, milk, etc. Fee \$3.00.

31. Histology. Three hours. First semester.

The structure of the elementary tissues of the animal body, followed by a systematic study of the structure of its organs. A practical course in simple methods of microscopic technic and ample opportunity for further preparation work. Fee \$3.00.

32. Embryology. Three hours. Second semester.

A study of the principles of vertebrate embryology based on the development of the chick and pig. Instruction given in the preparation of embryonic material for microscopic examination. Adequate attention is paid to human embryology. Fee \$3.00.

34. Physiology of Nutrition. Three hours. Second semester.

This course extends the presentation in course 21 as regards nutrition. The main topics are foods, their digestion, transformation and service in the body. Fee \$3.00.

BUSINESS ADMINISTRATION AND ECONOMICS

MR. TILLOTSON

The purpose of the Department of Business Administration and Economics is to give its students a well-rounded training in the principles underlying all lines of business. It aims to give the student a serviceable background for practical living and will be found particularly helpful to students who plan to become managers of commercial or manufacturing establishments. The courses are also commended to those students who have not yet chosen their vocation but seek knowledge most likely to be of value in their future work.

The following program represents in outline the subjects which the student should take during the first two years.

GENERAL BUSINESS CURRICULUM

FIRST YEAR

SEMESTER 1		SEMESTER 2	
Elem. Acct.	3	Elem. Acct.	3
Econ. Resources	3	Econ. Hist. of the U. S	3
English	3	English	3
Electives	6	Electives	6
Physical Training	2	Physical Training	2

SECOND YEAR

SEMESTER 1		SEMESTER 2	
Advanced Acct.	3	Advanced Acct.	3
Prin. of Economics	5	Money and Banking	3
Business Corres.	2	Electives	9
Electives	5		

BUSINESS LAW, SALESMANSHIP AND ADVERTISING are third and fourth year subjects and are offered at this time. Other advanced Business Subjects belonging in the curriculum in the Junior and Senior years are being planned and will be open to students as the demand for them arises. Either 34 or 36 will be given in 1922-23, but not both.

ECONOMICS

11. Economic Resources. Three hours. First semester.

This course treats of the leading facts and principles of industrial and commercial geography. It includes a study of the products of industry, of commercial movements, trade routes, and commercial policy. Emphasis is laid upon the resources and trade of the United States.

Open to freshmen and sophomores.

12. Economic History of the United States. Three hours. Second semester.

A general survey of the economic problems and forces that have shaped the course of American history. The aim is to give the student an opportunity to see economic forces at work and to understand better present conditions.

Open to freshmen and sophomores.

21. Principles of Economics. Five hours. First semester.

A course in the fundamental principles of the science of business. The topics covered include a detailed study of the laws of wealth, utility, value, prices, etc. The laws of distribution as affecting interest, wages, rent and profits. Other topics studied are exchange, money, banking, international trade, problems of labor, protection, free trade, socialism and taxation.

Prerequisite: Thirty hours of college work.

22. Money and Banking. Three hours. Second semester.

The purpose of this course is to make a critical study of the theory, qualities and functions of money; bimetalism, free silver, gold and limping standards and value of money. About two-thirds of the course is devoted to the study of banking and credit, types of banks and their functions, banking operations, domestic and foreign exchange, bank loans, investment, bills, drafts, notes and other instruments of credit. Some time is given to a thorough study of the Federal Banking System.

Prerequisite: Economics 21.

BUSINESS ADMINISTRATION

15-16. Elementary Accounting. Three hours each semester.

This course is an introduction to the study of Accounting and is adapted primarily to the demands of general business. The topics covered include, double entry bookkeeping with the books of account and business papers common to a mercantile business; classification of accounts; handling of sales, purchases and cash; controlling accounts; partnership and corporation accounts; the preparation of financial statements; the closing of books of original entry. Ample practice work is provided.

Students who present two units of bookkeeping for entrance should register in the second semester, Accounting 16.

25-26. Advanced Accounting. Three hours each semester.

Continuation of Accounting 15-16. This course is designed for students desiring a more thorough knowledge of accounting for general business purposes and for those who wish to prepare for the C. P. A. examination. The solution of a large number of graded problems from actual practice and C. P. A. examinations constitutes an important part of the course.

Prerequisite Accounting 15-16.

29. Business Correspondence. Two hours. First semester.

A course given primarily to familiarize the student with the best practices of modern business English. The various types of letters used in business, such as letters of inquiry, orders, complaints, adjustments, credits, sales, follow-up, collection and applications are analyzed. This is followed by practice work on the part of the student in the writing of the various types of letters.

Primarily for those having 30 hours of college credit.

31. Business Law. Three hours. First semester.

A course in the principles of law as applied to business. The student is taught the nature and importance of law, how laws are made, the operation of the courts, followed by a study of contracts, sales, negotiable instruments, agency, partnerships, corporations and other topics of business law.

Prerequisite: Sixty hours of college credit including Economics 21.

33. Business Organization and Administration.

Three hours. First semester.

This course is designed as a general survey of modern business procedure. A study is made of typical industries and the problems involved in incorporating, financing, production, planning and managing. Attention is given to the interpretation of accounts; credit and collections; selling, advertising and sales management.

Prerequisites: Economics 21 and Accounting 15-16.

34. Transportation and Traffic Management.

Three hours. Second semester.

The history and development of railways; their present organization and management; theory of rates, rate making and classifications. Special application is made to local conditions.

Prerequisite: Business Organization and Administration 33.

36. Marketing and Distribution. Three hours. Second semester.

This course presents the fundamental principles, methods and problems of marketing. Instruction in the organization and operation of marketing systems; Determination of market prices; methods of distribution; position of middleman; consideration of warehouse systems; chain stores, and the problems of the manufacturer, wholesaler and retailer.

Prerequisite: Business Organization and Administration 33.

35. Salesmanship. Two hours. First semester.

The principles of salesmanship and their practical application. Policies and practice of sales organizations; wholesale, retail and specialty salesmanship; motives for buying; finding prospects and securing interviews; meeting objections; selection of talking points; closing the sale; cultivation of character and make-up of personality. Sales demonstration by students and practical talks by business men. Alternate years.

Prerequisite: Economics 21.

38. Advertising. Two hours. Second semester.

A course dealing with advertising as a direct selling force and as a factor in distribution. The subjects covered include English as related to advertising; advertising campaigns; analyses of mediums; commodities and markets; use of color and illustrations; preparation of copy and advertising displays. Students will be asked to write copy, design layouts and plan campaigns. Alternate years.

Prerequisite: Economics 21.

CHEMISTRY

DR. ASHMAN, MISS HARVEY

The courses in chemistry meet the needs of three classes of students: those who take the subject as part of a general education; those who intend to study medicine or pursue Home Economics, and those who intend to take up chemistry as a profession. Emphasis is placed upon the close contact of chemistry with outside affairs.

COURSES

11-12. General Chemistry. Five hours each semester.

(a) Characteristics of chemical change, elements, compounds of oxygen hydrogen, water, chlorine, hydrochloric acid, atomic theory, nitrogen and ammonia. Lectures and laboratory, six hours a week.

(b) A combination of the study of non-metallic elements, the halogens, sulphur and nitrogen groups, valence, solution and electrolysis. Lectures and laboratory, six hours a week.

(c) The chemistry of the metallic elements and their more important compounds. Preparation of a number of common salts and the identification of simple substances. No attempt is made to teach qualitative analysis, but at the end of the course the student should be able to identify any simple salt, and understand the separation of various groups and elements. Lectures and laboratory, six hours a week. Prerequisite: Physics 1, or its equivalent. Fee \$5.00 each semester.

21. Advanced General Chemistry and Qualitative Analysis.

Five hours. First semester.

The lectures and recitations on advanced general chemistry deal with the subjects as presented in Stieglitz Qualitative Analysis, Vol. 1; study of the theory of solution, electrolytic dissociation, hydrolytic dissociation, mass action and chemical equilibrium, two hours a week. In the laboratory, reactions of basic and acidic ions, analysis of mixtures, six hours a week. Fee \$5.00.

22. Quantitative Analysis. Five hours. Second semester.

Methods in gravimetric, volumetric and electrolytic determination. Lectures and laboratory, eight hours a week. Fee \$5.00.

23. Elementary Organic Chemistry. Four hours. First semester.

A systematic study of the hydrocarbons and their derivatives, including typical representatives of both the aliphatic and aromatic series. This course is intended to give special preparation for course 24, which follows it. Lectures and laboratory, six hours a week. Fee \$5.00.

24. Chemistry of Foods. Four hours. Second semester.

Lectures and laboratory work in the examination and testing of food materials, including the quantitative determination of the food principles in some of the common, typical foods. Lectures and laboratory, six hours a week. Fee \$5.00.

31. Advanced Quantitative Analysis. Five hours. First semester.

This course follows Course 22 and is a continuation of Volumetric and Gravimetric Analysis. Fee \$5.00.

32. Organic Chemistry. Five hours. Second semester.

A more comprehensive presentation of the subject than is given in Course 23. Fee \$5.00.

ENGLISH

MISS CONSTANCE, MR. MARVIN, MISS HOBSON, AND MISS SHEPARDSON

0. Preparatory Composition. First or second semester.

This course is planned to meet the needs of college students who fail to pass the preliminary tests in English 11 and of vocational students who are deficient in English. A thorough review is given in grammar, spelling, punctuation, and sentence structure. Special attention is given to the correction of errors of individual students. No credit.

11-12. Rhetoric and Composition. Three hours each semester.

This course is a more advanced study of the principles of rhetoric with a careful consideration of the four forms of discourse. For Freshmen.

21-22. Exposition. Two hours each semester.

This is a course in practical exposition, stressing both structure and style; a careful study is made of the essay as a literary form. Prerequisite: English 11-12.

23-24. Survey of English Literature. Three hours each semester.

This is a general course in English literature from the beginning to the end of the nineteenth century. No credit is given for only one semester's work. Prerequisite: English 11-12. Prerequisite to all courses in English literature.

25-26. American Literature. Three hours each semester.

This is a course in American literature from the beginning to the present time; representative works are studied and compared with English masterpieces; stress is laid upon the peculiar features of American life as revealed in American literature. No credit is given for only one semester's work. Prerequisite: One year of college work.

27-28. Narration. Two hours each semester (1923-24).

This course includes the study of the short story as a literary form and practice in the writing of narration. Prerequisite: English 11-12.

27J-28J. Journalism. Two hours each semester.

This is a course in the essentials of journalism: a study of and practice in the preparation of ordinary news articles, the "feature story," the feature article, and interviews. All members of the class will be required to act as reporters on the staff of the "Bradley Tech." Suitable material prepared in the class will be presented for publication to the various news service bureaus and to the local papers. Prerequisite: English 11-12.

29. Business Correspondence.

(See Business Administration 29).

31. Early English Drama. Two hours. First semester.

A study is made of the development of the English drama from the beginning to Marlowe. Prerequisite: English 23-24 and two years of college work.

32. Shakespeare. Two hours. Second semester.

A study is made of the development of Shakespeare's art as exemplified by his representative plays. Prerequisite: English 23-24 and two years of college work.

33-34. English Novel. Two hours each semester.

A study is made of the development of the English novel from the beginning to the present time. Prerequisite: English 23-24 and two years of college work.

35. Victorian Prose. Two hours. First semester. (1923-1924).

Some attention is given to the principles of prose criticism; a study is made of the representative works of Carlyle, Ruskin, and Arnold. Prerequisite: English 23-24 and two years of college work.

36. Victorian Poetry. Two hours. Second semester. (1923-1924).

Some attention is given to the technique of poetry; a study is made of the representative poems of Tennyson and Browning. Prerequisite: English 23-24 and two years of college work.

37. Modern Continental Drama. Two hours. First semester. (1923-1924)

A study is made of the chief continental dramatists from Ibsen to the present day. Prerequisite: English 23-24 and two years of college work.

38. Modern British and American Drama.

Two hours. Second semester. (1923-1924).

A study is made of the chief English-speaking dramatists from Wilde to the present day. Prerequisite. English 23-24 and two years of college work.

39. Romantic Movement in English Poetry. Two hours. First semester.

A survey is made of the Romantic tendencies of the latter part of the eighteenth century; emphasis is laid upon the chief poems of Wordsworth, Coleridge, Byron, Shelly, and Keats. Prerequisite: English 23-24.

41. Teaching of English Composition. Two hours. First semester.

This course is designed to prepare students to teach English composition in the upper grades and the secondary schools. Prerequisite: Three years of college work. (Not given 1922-23).

42. Teaching of English Literature. Two hours. Second semester.

This course is designed to prepare students to teach English literature in the upper grades and the secondary schools. Prerequisite: Three years of college work. (Not given 1922-23).

43-44. Chaucer. Two hours each semester.

This course includes some study of the development of the language and a detailed study of the chief works of Chaucer. Prerequisite: English 23-24 and three years of college work.

PUBLIC SPEAKING

13. Public Speaking. Two hours. First semester.

This course is a study of the purposes of speech and of the specific demands of an audience upon the speaker; emphasis is laid upon the construction and delivery of extemporaneous speeches, aiming to develop poise and ability to think on the platform. Public Speaking 13 or 15 is required for graduation.

14. Public Speaking. Two hours. Second semester.

This course is a continuation of Public Speaking 13. A study is made of the characteristics of public address, of types, of the argument, and of the ora-

tion; emphasis is laid upon the methods of securing and holding attention, arousing interest, and winning response. Prerequisite: Public Speaking 13.

15, 16. Fundamentals of Speech. Two hours each semester.

A study is made of tone quality and placement; drill is given on vowel and consonant sounds. Some attention is given to the forms of utterance. Representative literary selections are memorized. Public Speaking 13 or 15 is required for graduation.

17-18. Dramatic Interpretation. Two hours each semester.

A study is made of the technique required to interpret different literary forms. Emphasis is laid on tone color, atmosphere, transition, and characterization; attention is given to the preparation of the lecture recital and to the study of plays; practice is given in the cutting and reading of scenes. Prerequisite: English 11, 12, and Public Speaking 13 or 15.

HISTORY

DR. WYCKOFF

12. Economic History of the United States. Three hours. Second semester.
See Economics 12.

21, 22. Medieval and Early Modern History. Three hours each semester.

Following a rapid survey of the changes accompanying the Teutonic invasions, the course traces the development of European history from the reorganization of the Empire by Charles the Great to the 18th century. Required of students majoring in the Social Sciences.

23. Modern Europe. Five hours. First semester.

A study of European progress from the 18th century to the present time. Prerequisite: History 21, 22.

24. English History. Five hours. Second semester.

A general survey of the political, economic, and social development of the English people.

25, 26. European History. Three hours each semester.

A survey of modern times with some reference to the medieval background. Recommended only for those who desire the minimum history requirement for graduation. Also offered as a three-hour course in the Summer Session. Not open to Freshmen.

31, 32. History of the United States. Three hours each semester.

The course brings out the essential lines of development which have entered into the making of the American Nation.

35. The Renaissance. Two hours. First semester.

An intensive study of the Renaissance period in Europe. 12th to the 16th centuries. (Not given 1922-23).

41. Europe in the 20th Century. Two hours. First semester.

The course will take up European relations in the 20th Century, the Near and Far East, the Balkan Wars and the World War, and the territorial, political and economic reconstruction of Europe following the World War.

42. Contemporary History. Two hours. Second semester.

A study of the recent history of the United States with special reference to present day problems and world relations.

43, 44. Teacher's Course. Two hours each semester.

Gives training in historical method and in organizing and presenting historical material. For students who expect to teach or to do graduate work in history. Not given in 1922-23.

45, 46. Research Course. One hour each semester.

The purpose of the course is to give advanced students preliminary training in the work of the graduate seminar. Topics will be assigned to individuals or groups to investigate and report upon for discussion by the entire group.

HOME ECONOMICS

MISS HADLEY, MISS LONG, MISS POTTER, MISS JONES, MISS KNIGHT

Courses are planned to meet the needs of the following groups:

(a) Students who desire to teach Home Economics in elementary and secondary schools and in higher institutions of learning. (1) Four-year course leading to B. S. Degree and Diploma in Home Economics. (2) Two-year course—Certificate in Home Economics. (The first year's work is the same in both courses).

(b) Students who wish to enter the field of institution administration as student dietitians, directors of lunch rooms, cafeteria managers, dietitians in social settlements. Courses in sociology, economics, psychology and elements of accounting are required of this group.

(c) Students who desire general knowledge of the subject matter relating to the economic, scientific, and social problems of the home as a part of a liberal education.

NOTE: Students are strongly urged to take the four-year course, if possible, since a college degree is increasingly demanded of those wishing to teach Home Economics in High Schools. 126 to 128 semester hours are required for the B. S. degree in Home Economics.

Electives. Students are allowed a liberal choice of electives. In the third year they may specialize in Clothing and Textiles or Foods and Nutrition. Certain courses in Home Economics may be elected by young women in the A. B. group. See H. S. 21, 31, 32; and H. A. 21, 22, 23, 34; H. Ec. 14.

Students specializing in Textiles and Clothing are advised to elect:

H. A. 23 Needlework 2

H. A. 31 Costume Design 3

H. A. 34 Interior Dec. 2

H. A. 44 Dress Design and Modeling 3

H. A. 42 Millinery 2

Students specializing in Foods and Nutrition are advised to elect:

H. S. 33 Quantity Cookery 3

H. S. 34 Institution Organization 2

H. S. 35 Demonstration Cookery 3

H. S. 41 Advanced Nutrition 3

H. S. 42 Home Nursing 2

Uniforms. Two white poplin or lawnsdale sheeting uniforms are required of students in cookery classes. Butterick pattern No. 2848. White wash skirts and waists may be worn.

Dormitory. For a statement in regard to Laura Cottage see page 18.

THE SUBJECT MATTER OF THE COURSE IN HOME ECONOMICS INCLUDES:

(a) *General and Cultural Subjects.* A knowledge, application, and appreciation of good English; courses in Art, Literature, History, Sociology, Economics.

(b) *Educational Subjects.* The necessary credits in education and psychology are required for teacher's certificate. Additional credits may be obtained by electing other courses in education.

(c) *Scientific Subjects.* Include Chemistry, Biology, Bacteriology, and Household Physics.

(d) *Technical Subjects.* Include theory and practical work in clothing and food laboratories, work in student cafeteria, residence in practice house and practice teaching.

Practice Teaching. Opportunity is given for practice teaching in Bradley Hall to children of the upper grades. Classes in both sewing and cooking are organized and conducted by student teachers at a Social Center. Observation in city schools is required.

Practice House. A seven-room practice house near the Institute furnishes a home for a group of students and two instructors. The house is a practical laboratory for courses in Home Management and Housewifery.

SUGGESTED CURRICULUM IN HOME ECONOMICS

A complete program for the four years' course is printed as likely to prove helpful to students in planning a thorough and comprehensive course. In consultation with the Dean it may be changed to suit the needs of any individual. Opportunity is given for specialization at the beginning of the third year. Students may choose electives in other departments according to their needs, with approval of the Registering Dean.

FOUR YEAR COURSE

FIRST YEAR			
FIRST SEMESTER		SECOND SEMESTER	
H. A. 11 Clothing I	3	H. A. 12 Clothing I	3
H. S. 11 Foods I	3	H. S. 12 Foods II	3
Chem. 11 General Chem.	4	Chem. 12 General Chem.	4
Household Physics 13	2	Household Physics 14	2
Art 27	2	Art 28	2
Eng. 11 Rhet. and Comp.	3	Eng. 12 (Rhet. and Comp.)	3
Hygiene	1	Hygiene	1
Physical Training	2	Physical Training	2
SECOND YEAR			
FIRST SEMESTER		SECOND SEMESTER	
H. A. 21 Textiles	2	H. A. 22 Dressmaking I	3
H. A. 23 Needlework (elective)	2	H. S. 22 Elements of Nutrition and Dietetics	3
H. S. 21 Housewifery and Laundering	2	Chem. 24 Chem. of Foods	4
Chem. 23 El. Organic	4	Biology 22 Bacteriology	3
Biology 21 Physiology	5	Eng. 24 or 26	3
Eng. 13 P. Speaking (elective)	2	Elective	2
Eng. 23 or 25	3	Physical Training	2
Physical Training	2		

THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
H. A. 31 Costume Design	5 or 6	H. A. 32 Dressmaking II	8
Mech. Dr. 31 House Construction		H. A. 34 Interior Decoration	
or		Art 32 Costume Illustration	
H. S. 33 Quantity Cookery		or	
H. S. 35 Demonstration Cookery		H. S. 32 Meals and Table Service	
Sociology 21		H. S. 34 Institution Organization	
History 21 or 31		Biology 34 Nutritional Physiology	
Economics 11	3	History 22 or 32	3
Education 21 Psychology	3	Electives	5 or 6

FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
H. Ec. 41 Methods of Teaching	3	H. Ec. 14 Survey of Home Economics	1
Ed. 13 History of Education	2	Ed. 15 Intro. to Ed.	2
H. S. 41 Advanced Nutrition (elective)	3	H. S. 42 Home Nursing (elective)	2
H. A. 41 Millinery (elective)	2	H. S. 44 Home Mg't.	2
Practice Teaching	8 to 10	H. A. 44 Dress Design and Modeling (elective)	3
Electives		Practice Teaching	8 to 10
		Electives	

TWO YEAR COURSE

First Year Same as in Four Year Course

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
H. A. 21 Textiles	2	H. A. 22 Dressmaking I	3
H. S. 21 Housewifery and Laundering	2	H. S. 22 Elements of Nutrition and Dietetics	3
H. Ec. 41 Methods of Teaching	3	H. S. 44 Home Mg't.	2
Biology 21 Physiology	5	Biology 22 Bacteriology	3
Sociology 21	or	Chem. 24 Chemistry of Foods	4
Ec. 11 Economic Resources		Ec. History 12	or
Ed. 21 Psychology	3	Ed. 15 Introduction to Teaching	
Practice Teaching	3	Practice Teaching	3 or 2

HOUSEHOLD SCIENCE COURSES

11, 12. Foods I and II. Three hours each semester.

This course gives a general knowledge of the principles involved in the preparation of foods; study of production, manufacture, choice, care, cost, and composition of common food materials, and their value in the diet. Lectures and laboratory. Prerequisite or parallel: Chem. 11-12. Fee \$4.00.

21. Housewifery and Laundering. Two hours. First semester.

The work in this course centers around the Practice House and includes a study of the modern household; choice, care, cost of household furnishing; cleaning, repair, and renovation; labor-saving appliances, and general methods of household efficiency. Processes of laundering, removal of stains, etc. Lectures and laboratory. Open to all students. Fee \$1.00.

22. Elements of Nutrition and Dietetics. Three hours. Second semester.

A study of the fundamental principles of human nutrition and their application to the practical problems in both health and disease. Diets are planned to meet varying conditions of family life. Lectures and laboratory. Text: "Laboratory Manual of Dietetics," Rose; and "Feeding the Family," Rose. Prerequisite Foods I and II, Chem. 11, 12; 24; Bio. 21, 22. Fee \$2.00.

31. House Construction. See Mechanical Drawing 31, p. 49.

32. Meals and Table Service. Three hours. Second semester.

This course includes the study of the planning, cooking and serving of breakfasts, luncheons, dinners, suppers, and informal teas. Emphasis placed on attractive meals at a limited cost. Prerequisite: Foods I and II. Lectures and laboratory. Fee \$2.00.

33. Quantity Cookery. Three hours. First semester.

This course includes practice in handling materials in large quantity; planning of menus to meet needs of cafeteria, lunch room, etc. Preparation and service of food in college cafeteria. Lectures and laboratory. Fee \$1.00.

34. Institution Organization. Two hours. Second semester.

A study of various systems of organization in institutions; principles of administration; office management; essential forms of business correspondence; principles of bookkeeping. Trips to hotels, hospitals, cafeterias, etc. Prerequisite: H. S. 33.

35. Demonstration Cookery. Three hours. First semester.

Practice in giving demonstrations in Cookery. Valuable for general teaching and extension training. Prerequisite: Foods I, II. Fee \$1.00.

41. Advanced Nutrition. Three hours. First semester.

This course supplements the work in elementary nutrition and dietetics. Detailed study of diets for abnormal conditions. Assigned readings and discussion of topics in the field of food economics and nutrition. Lectures and laboratory. Prerequisite: Elements of Nutrition, Chem. 11, 12, 23, 24; Biology 21, 22, 34; Foods I and II.

42. Home Nursing. Two hours. Second semester.

A study of the care of the sick in the home, proper clothing, baths. Practice in preparing foods for invalids. Care of young children and elderly persons. Aid to injured. Lectures and laboratory. Demonstration lectures are given at Proctor Hospital. Prerequisite: H. S. 11, 12, 22; Chem. 11, 12; Biol. 21, 22; Fee \$1.00.

44. Home Management. Two hours. Second semester.

Discussion of problems of modern household from practical standpoint; organization of the household; study of business methods in housekeeping; accounting and budgeting. Principles involved in buying. Practical problems in marketing, planning, cooking and serving meals, keeping accounts; laundry. Residence in practice house. Fee \$1.00.

HOUSEHOLD ART COURSES

11, 12. Clothing and Textiles I and II. Three hours each semester.

The work is presented from the standpoint of the teacher in order that the students may have methods of presenting classroom problems. The practical work and lectures are intended to further develop and supplement any training the students may have received in sewing, etc., in secondary schools, and to organize the subject matter for elementary clothing problems for the beginning teacher. Text: Clothing for Women,—Baldt.

21. Textiles. Two hours. First semester.

Study of production, properties, preparation, and treatment of various textile fibers. Spinning, weaving, and finishing. Physical and microscopical tests are made for identification of fibers. Tests for adulteration and durability. Analysis of weaves. Prerequisite: Chemistry 11, 12. Fee \$1.00.

22. Dressmaking I. Three hours. Second semester.

This course gives instruction in drafting and use of patterns with special reference to the needs of those who are to teach sewing. Variation and alteration of drafted and commercial patterns; the cutting, making, and finishing of waists, simple dresses, and a wool skirt. Suitability of material, design, and color. Clothing budgets. Fee \$1.00.

23. Art Needlework. Two hours. First semester.

Application of the principles of design to the decoration of garments and textile household articles. Lace and embroidery stitches. Students furnish own materials. Open to all students.

31. Costume Design. Three hours. First semester.

The application of art principles in costuming. A brief study of historic costume and its application to present day dress. Costumes for various purposes, and for individual types. Prerequisite: Art 31, 32 or equivalent. Open to all students. Fee \$1.00.

32. Dressmaking II. Three hours. Second semester.

Further use of drafted and commercial patterns as adapted to more difficult problems with silk and wool fabrics; special emphasis on selection and purchasing of materials, fitting, and finishing. Detailed study of hygienic and economic aspects of clothing. Renovation problems. Prerequisite: H. A. 21 and 22. Fee \$1.00.

34. Interior Decoration. Two hours. Second semester.

Study of the relation of design principles to interior decoration; period styles, their use in modern furnishing. Selection and purchase of standing finish, floor, wall, and ceiling coverings, fire places, hardware, draperies, and accessories. Course includes field trips to shops and artistically decorated homes. Laboratory work in sketching elevations of various types of rooms, showing color, arrangement of standing finish, openings, and furnishings; and estimating cost of furnishing such rooms. Prerequisite: H. S. 31.

41. Millinery. Two hours. First semester.

Designing and modeling hats of various types in paper. Making wire, buckram, and rim net frames, covering with velvet, silk, straw, and lace. Making of bindings, cords, folds, flanges, etc. Renovating materials. Practice in making flowers and other forms of hat decorations. Linings. Fee \$2.00.

44. Dressmodeling and Designing. Three hours. Second semester.

This course includes dress designing and the use of dressmaking form. Padding and adjustment to individual form and figure. Practical work in making garments by modeling and draping on forms. Prerequisite: H. A. 22 and 31. Fee \$1.00.

GENERAL COURSES

14. Survey of Home Economics. One hour. Second semester.

A study of the development of education for women; history of the development of the home economics movement; biographies of pioneers of this movement; practical and educational purposes in teaching. Reports of assigned readings. Lectures.

41. Methods of Teaching Home Economics. Three hours. First semester.

Types of teaching; methods of study; lesson plans; courses of study for elementary grades and high school; equipment for both sewing and cooking laboratories. Practice teaching extended through the year. Observation in city schools.

INDUSTRIAL TEACHER TRAINING AND
VOCATIONAL COURSES

I. CURRICULA FOR THE PREPARATION OF TEACHERS

The Division of Industrial Teacher Training offers several four-year programs for teachers of shop work or drawing in Junior or Senior High Schools, and one program for Supervisors and Directors. These programs are arranged to enable a student to concentrate along certain lines in order to teach acceptably such technical subjects as woodworking, metalworking, drafting or automobile repair. The first year of work is alike for all students, and the subjects required are "finding courses" designed to serve as a basis for the selection of the field for later specialization. A core of general and professional studies runs through each of these programs so that the related science and mathematics as well as the specific professional courses in Education are included. The dominant idea is to give thorough technical training in *doing*, specific preparation for *teaching*, and an adequate background of Science, Mathematics, English, History and Sociology. To this end, prospective teachers are placed in the same shop classes with prospective workmen in the various vocations for which the Institute offers training. There is no difference in content made for the machinist, the draftsman or the teacher. The professional courses in Education are based upon a study of Psychology, and are made to bear directly upon the work the teacher is called upon to do. The more general courses in Science or Mathematics are identical with those carried by other students of college rank. The program designed for Supervisors and Directors is planned for those having (1) credit for two years of approved study in college or normal school, (2) actual teaching experience, and (3) personal fitness for administrative work.

The demand for graduates with four years of training is steadily increasing and far exceeds the supply. Prospective students are advised to plan for the completion of one of the above programs. For those finding it impossible to do this, a two-year program can be arranged by the substitution of courses in Education for certain of the technical and general subjects during the first and second year.

Men with trade experience meeting the requirement of teachers in federal and state aided vocational schools, may have a full year of study arranged for them with individual consideration of their professional needs as prospective teachers.

FOUR-YEAR PROGRAMS LEADING TO THE B. S. DEGREE

Program A. This curriculum is designed for the preparation of teachers who will be expected to teach both technical and general High School subjects. 136 semester hours are required for graduation, 46 of which consists of required technical work, 60 of general and professional, and 30 of electives. The electives are to be grouped so as to prepare for teaching effectively one or two high school subjects in addition to Manual Arts.

Program B. A curriculum giving considerable freedom of electives along technical lines, and designed for teachers in (a) Junior High Schools, (b) Agricultural High Schools, or (c) teachers of Automobile and Tractor Repair. In order to insure the necessary technical knowledge and skill this program requires 60 hours of general and professional subjects, and 76 hours of technical, 24 of which are specified and the balance electives selected according to the kind of position desired from Automobile and Tractor Repair, Architectural, Mechanical and Machine Drafting, Carpentry, Electricity, Freehand Drawing and Design, Forging, Sheet Metal and Machine Shop, or Woodworking.

Program C. For teachers desiring to specialize in drafting. 76 hours of required technical work and 60 general and professional subjects.

Program D. For teachers of woodworking in technical high schools and vocational schools. 76 hours of required technical and 60 general and professional subjects.

Program E. For teachers of metalworking with special emphasis upon machine shop practice. 76 hours of required technical and 60 general and professional subjects.

Program F. For Supervisors and Administrative Officers. Prerequisite for registration in this curriculum includes (1) 60 or more semester hours of approved credit in college or Normal School including both technical and general courses, (2) two years or more of successful experience in teaching industrial work, (3) general fitness for supervisory work. Opportunity is afforded for electives in technical, general and professional subjects.

FRESHMAN YEAR (ALIKE FOR A, B, C, D, AND E)

TECHNICAL		GENERAL	
M. Dr. 11-12 Mechanical Drawing	6	Eng. 11-12 Composition and Rhetoric	6
F. Dr. 11 Freehand Drawing	2	Math. 20 Shop Mathematics	2
W. Wk. 11, 12 Wood Technology, Finishing	6	Public Speaking 13	2
M. Wk. 11, 15 General Metal Work Forging	6		
W. Wk. 13-14 Millwork	4		

GENERAL AND PROFESSIONAL SUBJECTS REQUIRED FOR A, B, C, D, AND E DURING SOPHOMORE, JUNIOR AND SENIOR YEARS

History 31-32	6	Ed. 13 History of Education	2
Math. 15, 16, Mathematics	6	Ed. 15 Intro. to the Study of Ed.	2
Applied Physics 23-24	6	Ed. 25-26 Psychology	4
Soc. 21-22 Sociology	4	Ed. 31 Teaching Mechanical Drawing	2
Physical Training	2 years	Ed. 33 Teaching Woodworking	2
		Ed. 39 Methods of Teaching Manual Arts	3
		Ed. 41 History of Manual Arts	3
		Ed. 42 Equipments	2
		Ed. 44 Administration of Ind. Education	3
		Ed. 46 Vocational Guidance	3

REQUIRED TECHNICAL SUBJECTS AND ELECTIVES FOR A, B, C, D AND E DURING SOPHOMORE, JUNIOR AND SENIOR YEARS

Program A

M. Dr. 17 Architectural Drafting	3	W. Wk. 15 Patternmaking	4
M. Dr. 15 Machine Drafting	3	W. Wk. 26 Furniture Making	3
Des. 33 Theory of Design	3	General Electives	30
Des. 34 Interior Decoration	3		
Des. 38 Furniture Design	3		

Program B

TECHNICAL ELECTIVES, 52 SEMESTER HOURS

Program C

Metal 17, Machine Shop	3	M. Dr. 14 Descriptive Geometry	4
W. Wk. 15 Patternmaking	4	M. Dr. 15-16, 20 Machine Drafting	6
W. Wk. 26 Furniture Making	3	M. Dr. 17-18, 23-24 Arch. Drafting	16
F. Dr. 13 Freehand Drawing	3		
Des. 33 Theory of Design	3		
Des. 38 Furniture Design	3		

Program D

M. Dr. 15 Machine Drafting	5	W. Wk. 21-22 Millwork	10
M. Dr. 17-18 Architectural Drafting	8	W. Wk. 26 Furniture Making	3
W. Wk. 13-14 Millwork	6	Des. 33 Theory of Design	3
W. Wk. 15-16 Patternmaking	8	Des. 34 Interior Decoration	3
W. Wk. 18 Carpentry	3	Des. 38 Furniture Design	3

Program E

W. Wk. 15-16 Patternmaking	8	M. Wk. 21, 22 Jigs, Fixtures, Millwright- ing	6
M. Wk. 13 Sheet Metal 3	3	M. Dr. 15-16 Machine Drawing	8
M. Wk. 16 Adv. Forging	3	Auto 11, 12 Mechanism and Engines	4
M. Wk. 17-18 Machine Shop	10		
M. Wk. 19-20 Machine Shop	10		

Program F

FRESHMAN AND SOPHOMORE YEARS

SIXTY EIGHT HOURS OF APPROVED COURSES IN MANUAL ARTS AND
GENERAL SUBJECTS

JUNIOR YEAR

REQUIRED		ELECTIVES	
Ed. 31 Teaching Mechanical Drawing	2	General Electives	9
Ed. 33 Teaching Woodworking	2	Technical Electives	9
Ed. 39 Teaching Manual Arts	3		
Ed. 41 History of Manual Arts	3		
Ed. 42 Equipments	2		
M. Dr. 25-26 History of Architecture	4		

SENIOR YEAR

Ed. 36 Supervision of Instruction	3	General Electives	11
Ed. 43 Administration of Public Education	3	Technical Electives	11
Ed. 44 Administration of Industrial Education	3	Thesis	
Ed. 46 Vocational Guidance	3		

PROGRAMS REQUIRING LESS THAN FOUR YEARS LEADING TO
CERTIFICATE**Program H**

This program gives intensive training in shop work and drawing together with related academic and professional subjects. It is designed for teachers of Manual Arts in the grammar grades.

FIRST YEAR

M. Dr. 11-12 Mechanical Drawing	6	Eng. 11-12 Composition and Rhetoric	6
W. Wk. 11-12 Technology, finishing	6	Ed. 13 History of Education	2
F. Dr. 11 Freehand Drawing	2	Ed. 15 Introduction to Education	2
M. Wk. 14-15 Metalwork, forging	6	Ed. 25-26 Psychology	4
Public Speaking 13	2	Physical Training	

SECOND YEAR

Des. 33 Theory of Design	3	Soc. 21-22 Sociology	4
Des. 34 Interior Decoration	3	Math. 5 Shop Mathematics	2
Des. 36 Bookbinding	2	Ed. 31 Teaching Mechanical Drawing	2
Des. 38 Furniture Design	3	Ed. 33 Teaching Woodworking	2
M. Dr. 17 Architectural Drafting	3	Ed. 39 Teaching Manual Arts	3
W. Wk. 26 Furniture Making	3	Ed. 41 History of Manual Arts	3
Physical Training			

Program I

This program is planned for men with trade experience required of teachers in schools receiving state or federal aid. Each man is given individual consideration and emphasis is placed (1) upon how to analyze and organize the trade knowledge and skill he may have, and (2) how to teach others what he knows and can do.

II VOCATIONAL OR TRADE COURSES

NOTE—The studies are followed by a course number used in the department statements pages 22 to 59; e.g., Electric Wiring, Elec. 2, described on page 45 and Machine Shop Practice, Metal 17 on page 50. This program shows the general arrangement of studies but is subject to such changes as may be required. For additional information read page 12.

ELECTRICITY

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
Electric Wiring (Elec. 1-2)	Electric Wiring (Elec. 3-4)
Electrical Drawing (M. Dr. 5-6)	Machine Shop (Metal 18)
Elementary Electric Circuits (Elec. 5-6)	Woodworking Machinery (W. Wk. 14)
	Electrical and Magnetic Circuits (Elec. 7-8)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
Direct Current Machinery (Elec. 11-12)	Alternating Current Machinery (Elec. 13-14)
Direct Current Calculations (Elec. 15-16)	Alternating Current and Magnetic Calculations (Elec. 17-18)
Electricity and Magnetism (Ph. 3)	Electricity and Magnetism (Ph. 4)

MACHINE DRAFTING

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
Mechanical Drawing (M. Dr. 1)	Machine Drawing (M. Dr. 16)
Machine Drawing (M. Dr. 15)	(Double period)
Drafting Arithmetic (M. Dr. 7)	Drafting Arithmetic (M. Dr. 8)
Machine Shop Practice (Metal 17)	Machine Shop Practice (Metal 18)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
Machine Drawing (M. Dr. 16)	Machine Design (M. Dr. 20)
Drafting Mathematics (M. Dr. 9)	Drafting Mathematics (M. Dr. 10)
Forging (Metal 15)	Pattern Making (M. Wk. 15)
Machine Shop (Metal 19)	Machine Shop (Metal 20)

ARCHITECTURAL DRAFTING

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
Architectural Drafting (M. Dr. 17)	Architectural Details (M. Dr. 18)
Mechanical Drawing (M. Dr. 1)	Freehand Drawing (Art 14)
Freehand Drawing (Art 11)	Carpentry (W. Wk. 18)
Wood Technology (W. Wk. 11)	Woodworking Machinery (W. Wk. 14)
Drafting Arithmetic (M. Dr. 7)	Drafting Arithmetic (M. Dr. 8)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
Architectural Perspective (M. Dr. 23)	Architectural Design (M. Dr. 24)
Freehand Drawing	Freehand Drawing
Design (Art 33)	History of Architecture (M. Dr. 26)
History of Architecture (M. Dr. 25)	Interior Decoration (Art 34)
Architectural Mathematics (M. Dr. 9y)	Architectural Mathematics (M. Dr. 10y)

MACHINE SHOP PRACTICE

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
Machine Shop Practice (Metal 17)	Machine Shop Practice (Metal 18)
Forging (optional) (Metal 15)	Brazing (optional) (Metal 10)
Machine Drafting (M. Dr. 1)	Machine Drafting (M. Dr. 15)
Machine Arithmetic (Metal 1)	Machine Arithmetic (Metal 2)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
Machine Shop Practice (Metal 19) (Double period)	Machine Shop Practice (Metal 20)
Machine Drafting (M. Dr. 16)	Patternmaking (optional)
Machine Mathematics (Metal 3)	Machine Drafting (M. Dr. 16) or Descriptive Geometry (M. Dr. 14)
	Machine Mathematics (Metal 4)

WOODWORKING

FIRST SEMESTER	SECOND SEMESTER
Pattern Making or Mech. Draw. (M. Dr. 1)	Carpentry (Wood)
Wood Technology	Woodworking Machinery
Architectural Drawing (M. Dr. 17)	Architectural Drawing (M. Dr. 18)
Shop Arithmetic	Shop Mathematics

AUTOMOBILE

FIRST SEMESTER	SECOND SEMESTER
Automobile Mechanism (Auto 11)	Automobile Electricity (Auto 17)
Automobile Laboratory (Auto 13)	Garage Practice (Auto 19)
Automobile Forging (Metal 9)	Vulcanizing (Auto 15)
Machine Shop Practice (Metal 8)	Soldering and Brazing (Metal 10)
Automobile Drawing (M. Dr. 3)	Machine Shop Practice (Metal 8)
Automobile Mathematics (Auto 15)	

For convenience of reference various departments contributing chiefly to Teacher Training and Vocational work are grouped here instead of in alphabetical order throughout the catalogue.

ART

MISS MICKEL, MR. WOELFLE

11. Principles of Representation. Two hours. First semester.

This course is designed to give training of special value to manual training instructors, and includes (a) type solids, (b) furniture, (c) memory drawing, (d) perspectives from working drawings, (e) pen-and-ink rendering, (f) blackboard drawing. Lectures, discussions, reference reading, written work. Fee \$1.00.

13-14. Elementary Drawing. Four to ten hours each semester.

A course in line drawing, light and shades, and antique drawing. Pencil, charcoal, pen-and-ink, and brush-and-ink are the mediums employed. A study of the principles of perspective and illumination. Lectures, reference reading and studio. Fee \$1.00 and upward.

16. Outdoor Sketching. Two hours. Second semester.

This course consists of pencil drawings of architectural and landscape subjects in light and shade. Also wash drawings in color. Prerequisite: An elementary course in Freehand Drawing. Fee \$1.00.

21-22. Advanced Drawing and Painting. Ten hours each semester.

Drawing and painting from life, draped and costumed models. Lectures and studio. In the second semester this course will include landscape sketching in black and white and in color. Prerequisite: Art 13-14. Fee \$1.00 and upward.

24. Commercial Art. Three hours. Second semester.

A study of the underlying principles and special mediums and methods of drawing and painting in the field of advertising. The course includes the principles of lettering, black-and-white work for newspaper or magazine, posters and other designs in color. Lectures and studio. Prerequisite: Art 13. Fee \$1.00.

25-26. General History of Art. Three hours each semester.

A comprehensive introduction to the subject covering the entire history of art, designed to give information about, and an appreciation of the Fine Arts. No previous study of the subject is required.

27-28. Design for Home Economics. Three hours each semester.

This course for Home Economics students consists of problems in (a) theory of color, (b) theory of design. Problems in design centering upon needlework and household decorations. Instruction is given in tooled leather work. Prerequisite: Elementary courses in Freehand Drawing and Design. Fee \$1.00.

32. Costume Illustration. Three hours. Second semester.

This course is planned for teachers of upper grades and high schools. Further practice in drawing and color. Details for illustration, accessories, texture representation, etc. Prerequisite: Art 27, 28; H. A. 31. Fee \$1.00.

33. Theory of Design. Three hours. First semester.

This course consists of problems in (a) theory of color, (b) theory of design, (c) applied design. Problems centering around woodwork, metalwork, and clay modeling, suitable for grammar grade and high school work. Instruction given in tooled leather work. Prerequisite: Art 11. Fee \$1.00 and upward.

34. Interior Decoration. Three hours. Second semester.

This course consists of problems in mechanical perspective, and interior decoration. Prerequisite: Art 33. Fee \$1.00.

36. Bookbinding and Claywork. Two hours. Second semester.

This course includes (a) bookbinding and (b) claywork. The problems given are such as may be used with profit in the elementary schools. Fee \$1.00.

38. Furniture Design. Three hours. Second semester.

This course gives experience in design with reference to woodworking projects such as may be made in school shops and affords opportunity for a study of period furniture as a basis for the design of modern furniture. Prerequisite: Mech. Draw., Woodwork 11, Des. 33. Text: Varnum: Industrial Arts; Art Fee \$1.00.

AUTOMOBILE

MR. HEWITT, MR. CARTER, MR. BRICKNER, MR. KASTIEN

This department offers a year's course in Automobile work. Besides the work listed below, special applied courses are given for Automobile students in machine shop, forging and tractor work.

11. Mechanism. Five hours. First semester.

This course takes up a detailed study of all parts of the automobile, the engine, valve timing, carburetion, etc.

Text: Hobbs, Elliott & Consoliver, "The Gasoline Automobile."

13. Auto Laboratory. Two hours. First semester.

Practical work in the shop on frames, axles, transmissions and engines. The work consists of complete disassembling and assembling of standard systems, with practice in valve timing, fitting of rings, bearings, adjusting carburetors, etc. Fee \$1.50.

14. Vulcanizing. Three hours. Second semester.

This course includes (a) a study of the various tools and materials used in the commercial repair of casings and tubes, as well as the construction of various standard casings to guide in the repair of blowouts, rim cuts and retreading; (b) regular commercial repair shop work. Fee \$2.50.

15. Auto Mathematics. Five hours. First semester.

A course covering the fundamentals of arithmetic, algebra and geometry, the problems being selected with special reference to automobile, gas engine and tractor work.

Auto Forging. Three hours. First semester. See Metal Work 9, p. 50.

Auto Machine Shop. Two hours each semester. See Metal Work 7, 8, p. 50.

Auto Drawing. Three hours. First semester. See Mechanical Drawing 3, p. 47.

Brazing and Soldering. Three hours. Second semester. See Metal Work 10, p. 50.

16. Electricity. Five hours. Second semester.

This course includes (a) a study of ignition, lighting and starting wiring systems and their installation in several standard systems on cars; (b) repair of all kinds of ignition, lighting and starting systems with special stress laid on storage batteries. Fee \$1.50.

18. Garage. Seven hours. Second semester.

Shop practice in automobile repair and testing work in all its phases. Practical garage experience in overhauling and repairing cars. Fee 30 cents per semester hour.

EDUCATION

MR. SIEPERT, MR. HANNA

Courses offered in this department are intended for prospective teachers: (1) Manual Training, (2) Home Economics, (3) Academic subjects in grades or high schools.

13. History of Education. Two hours first semester. Repeated second semester

The aim of this course is to discover causes for, and to trace out the study of present educational problems. Text: Graves: Students' History of Education.

15. Introduction to the Study of Education. Two hours. First semester.

This is a general survey course the aim of which is to give the student a general knowledge of educational problems, with an understanding of the principles and methods to be employed in meeting such problems. Text: Judd: "Introduction to the Scientific Study of Education."

21. General Psychology. Three hours first semester. Repeated second semester

A course in psychology including a general survey of the physiological laws upon which the principles of psychology are based, together with a study of the chief phases of human behavior which are involved in the learning process. Lectures, discussions, references and experimental work. Text: Woodworth, "Psychology."

23. Educational Psychology. Three hours. First semester.

A course similar in scope to Education 25-26, and arranged particularly with reference to the needs of teachers. The course is somewhat less intensive. Lectures, discussions, reference and experimental work. Text: Cameron, "Psychology and the school."

25-26. Educational Psychology. Two hours each semester.

A course in psychology similar to Education 21, but more extensive in character, and given with special reference to the needs of teachers. Lectures, discussions, reference and experimental work. Text: Cameron, "Psychology and the school."

31. Teaching Mechanical Drawing. Two hours. First semester.

A course in methods of teaching drawing based upon an analysis of (a) the purpose to be attained, (b) the subject matter involved and (c) the type of student concerned. Lectures, discussions, reference reading, drafting room practice. Prerequisite: Mech. Drawing 11, 12, Ed. 25-26. Fee \$1.00.

32. Methods of Teaching in Elementary Schools.

Three hours. Second semester.

A course dealing with the subject-matter and methods of teaching the fundamental, elementary school subjects. Text: Kendall and Mirick: "How to Teach the Fundamental Subjects," supplemented by Freeman: "The Psychology of the Common Branches."

33. Methods of Teaching Woodworking. Two hours. First semester.

A comprehensive course in methods of teaching Woodworking. Students arrange demonstration material, give demonstrations, and prepare tracings for a course of study. Practice teaching and observation of classes in the Peoria Public Schools and Institute shops. Text: Griffith: "Correlated Courses." Fee \$1.50.

34. Methods of Teaching in High Schools. Three hours. Second semester.

This course deals with the purposes, principles and methods of education as they apply to students in the High School. Text: Parker: "Methods of Teaching in High Schools."

36. Supervision of Instruction. Three hours. Second semester.

A course dealing with the principles of supervision. Students will visit assigned classes for observation and make reports. Courses of study will be examined, and schedules for teachers and pupils be planned. Text: Nutt: "The Supervision of Instruction."

38. Mental Tests and Measurements. Two hours. Second semester.

A course in the theory and technique of group and individual intelligence tests as a means of diagnosing difficulties, discovering special and superior aptitudes, and serving as an effective aid in the work of educational and vocational guidance. The course includes a history of the testing movement. Prerequisite: Ed. 21, or Ed. 25-26.

39. Teaching Manual Arts. Three hours. First semester.

In this course, (a) the principles of teaching are presented with special reference to the manual arts, (b) methods of teaching are considered, (c) and typical lessons observed and discussed. Lectures, discussions, reading, written work. Text: Griffith: "Teaching Manual Arts." Prerequisite: Education 21, or 25-26, 13 or 15.

41. History of the Manual Arts in Education. Three hours. First semester.

This course covers (a) a brief review of the educational theory and practice of Pestalozzi, Froebel and other educational reformers, (b) educational handwork in European countries, (c) the development of manual training, art instruction and industrial education in the public schools of the United States, (d) present problems relating to the manual arts in both general and vocational education. Lectures, discussions, reading and written work. Prerequisite: Education 21, or 25-26, 13 or 15.

42. Equipments. Two hours. Second semester.

A study of the considerations affecting the selection, arrangement and installation of equipment including (a) needs of different types of schools, (b) what to avoid or favor in equipments, (c) economic and engineering problems arising, (d) detail plans of installations to meet given conditions, (e) specifications for purchase and installation. Lectures, discussions, reading, written work and drafting. Text: Greene: "School Shop Installation." Prerequisite: Wood 11, Mechanical Drawing 11, 12, Education 41. Fee \$1.00.

43. Administration of Public Education. Three hours. First semester.

A study of the problems of administration with reference to city, state and federal organization. The nature and formation of boards of control, superintendents and principals will be considered, as well as the teaching staff, courses of study, pupils results, costs, records, and reports. Recitation, reference reading, reports. Text: Cubberly: "Public School Administration."

44. Administration of Industrial Education. Three hours. Second semester.

This course refers students to the manual arts in both general and vocational education. It is open to students of Senior college grade only. It covers (a) administration from the standpoint of democracy, (b) selection and organization of subject matter, (c) the school system, (d) equipment and supplies, (e) business details, (f) teachers, (g) supervision. Lectures, discussions, reference reading and written work.

46. Vocational Guidance. Three hours. Second semester.

An information course in vocational guidance and placement. The course will include a study of the employment situation particularly as it relates to junior wage earners, a review of child labor and compulsory attendance legislation, a study of the personnel movement, consideration of the junior high, continuation, opportunity and part-time schools as suitable agencies for contact, the use of psychological tests and other criteria for measuring and estimating abilities, methods of imparting and using vocational information, etc. Prerequisite, Ed. 21 or its equivalent.

47. Thesis.

A non-credit requirement for all certificates and degrees granted to students in the Industrial Teacher-Training Division. Specifications concerning theses furnished on request. Fee \$1.00.

ELECTRICITY

MR. DACE, MR. McMEEN, MR. SCHLEGEL

1, 2. Elementary Electric Wiring. Five hours. Either semester.

The work in this course covers the fundamental principles of two wire circuits which find application in annunciator, door bell, and signal wiring, and elementary power circuits. It is intended to give the student a thorough foundation for more advanced work. The problems in this work are progressive in nature and the student may proceed as fast as his ability will permit. Fee \$5.00.

3, 4. Advanced Electric Wiring. Five hours. Either semester.

This work being a continuation of the above work carries the student into concealed knob and tube work as practiced in house wiring, later progressing to rigid conduit installations. Two wire, three-way, four-way, electrolier and stair-way circuits are studied and installed. Diagramatic wiring and house practice are covered in a very thorough manner. Elementary resistance measurements are made and simple electric circuits are studied. The problems in this work as in the preceding course are progressive, and the student may proceed as fast as his ability will permit. Fee \$5.00. Prerequisite, Electricity 1 or 2 and registration in Electricity 7 or 8.

5, 6. Elementary Electric Circuits. Five hours. Either semester.

Instruction is given in the mathematical calculations of simple electric circuits and practical problems arising therefrom. Bills of material are made and costs computed. Prerequisite, registration in Electricity 1 or 2.

7, 8. Electrical and Magnetic Circuits. Five hours. Either semester.

This course is a continuation of Electricity 5 or 6 and carries the student into mathematical problems involving involution and evolution. Application is found in calculation of electric circuits, carrying capacities of conductors, resistance, conductivity, and reluctance of magnetic circuits. Prerequisite: Electricity 5 or 6, and registration in Electricity 3, 4. Text: Moyer & Sampson's "Practical Trade Mathematics."

11, 12. Direct Current Machinery. Three hours. Either semester.

Instruction and shop practice is given covering the fundamental principles involved in direct current meters, generators, motors, storage batteries and allied

direct current apparatus. The design of direct current armature windings is taken up in detail and studied thoroughly. The student is expected to design completely and wind upon a given core a winding suitable for operation as a small generator. This is followed by study and construction of form wound and hair pin loop coils and completely finishing a 5 or 10 horse power armature. All types of windings are studied. Testing for various faults is taken up in detail and completed armatures and coils are tested thoroughly. Prerequisite: Electricity 3 or 4 and registration in Electricity 15, 16. Fee \$3.00.

13, 14. Alternating Current Machinery. Three hours. Either semester.

This course is a continuation of Electricity 11, 12. The instruction and shop practice covers preliminary design and winding of transformers, alternating current generators, and induction motors. Windings for motors up to ten horse power are designed and constructed in the class. Special reference is made to designing windings for existing induction motor cores of various types. A study is also made of alternating current generators and allied control apparatus. This is followed by detailed tests upon the apparatus constructed. Meter testing is taken up and a thorough training is given in integrating watt hour, meter testing as done by utility companies. Prerequisite: Electricity 11, 12 and registration in Electricity 17, 18. Fee \$3.00.

15, 16. Direct Current Calculations. Three hours. Either semester.

More comprehensive study is made of the electric continuous current circuits. Equations concerning such circuits are studied and applied in arising problems. Electric and magnetic circuits are studied in greater detail and the mathematics of design problems are worked out. Elementary algebra is encountered. Prerequisite: Electricity 7 or 8 and registration in Electricity 11 or 12. Text: Keal and Leonard's "Mathematics for Electrical Students."

17, 18. Alternating Current and Magnetic Circuit Calculations.

Two hours. Either semester.

This course is a continuation of Electricity 15 or 16. It takes the student through some of the more involved algebraic determinations passing on to simple trigonometric functions and a comprehensive and detailed study of logarithms. Mathematical problems arising in the preliminary design of transformers and induction motors are taken up and solved. The slide rule is studied and students are required to provide themselves with an approved style and make. Prerequisite: Electricity 15 or 16, and registration in Electricity 13 or 14. Text: Kale & Leonard's "Mathematics for Electrical Students."

MECHANICAL, ARCHITECTURAL AND MACHINE DRAWING

MR. WHARRY, MR. TEACH, MR. SCHLEGEL

Drafting boards and T-square are furnished by the Institute. The student must supply all other equipment, a list of which will be furnished on request. The cost will be \$8.00 and up according to course taken. All equipment must have the approval of the department.

The fee for drawing courses is 25 cents per semester hour of enrollment, with a minimum charge of \$1.00. No fee is charged for courses 7, 8, 9y, 10y, 9, 10, 25, 26, 28.

Students desiring credit in any drawing course should present themselves at 1 p.m. of Tuesday preceding the opening of the first semester at which time an examination will be held to determine eligibility to advanced standing. They should also present their drawing plates for inspection, and a certificate from the school attended. Persons not complying with these three requirements in full may not expect credit.

1. Mechanical Drawing.

Two to five hours. First semester. Repeated second semester.

A course for students with no drawing experience. Text: Bennett: "Problems in Mechanical Drawing;" also Bailey: "Mechanical Drawing for Beginners."

3. Automobile Drawing. Three hours. First semester.

For automobile students. Sketching, blue-print reading and use of instruments in drawing parts of the automobile. Wiring diagrams. This course is preparatory to motor construction in the machine shop. Text: Bailey: "Mechanical Drawing for Beginners." (For reference only).

5, 6. Electrical Drawing. Two hours each semester.

A vocational course intended to enable students in electricity to make simple drawings and read blue prints. It includes freehand lettering, working drawings from objects, wiring diagrams of standard feeder panels, direct current motor and generator diagrams and alternating current diagrams for induction motors, etc. Prerequisite: Registration in electricity. Text: Bailey: "Mechanical Drawing for Beginners." (For reference only).

7, 8. Drafting Arithmetic. Five hours each semester.

The solution of simple practical problems that occur in the machine shop and the drafting room. Text: Breckenridge, Mersereau and Moore "Shop Mathematics." No fee.

9y, 10y. Architectural Mathematics. Five hours each semester.

A Vocational course involving both approximate and detailed estimating, algebra, geometry and trigonometry with their application to elementary structural design. Prerequisite: Mech. Dr. 7, 8, or its equivalent. No fee.

9, 10. Drafting Mathematics. Five hours, each semester.

A continuation of 7, 8, with special reference to simple algebra, geometry, graphs, trigonometry, logarithms, etc., such as machinists and draftsmen need to know. Text: Norris & Craigo: "Advanced Shop Mathematics." Prerequisite: Mech. Dr. 7, 8, or its equivalent. No fee.

11, 12. Teacher Training Drawing. Three hours each semester.

For students intending to teach the Manual Arts. Freehand Lettering and Sketching, use of instruments, penciling and inking in geometrical construction and working drawings. Isometric, cabinet and orthographic projection, plane sections, intersections and developments. Emphasis on principles involved and good technique. Prerequisite: 3 S. H. of Mech. Dr. 1. Text: Tracy: "Mechanical Drawing."

13. General Engineering Drawing. Four hours. First semester.

For freshman engineers. Emphasis on orthographic projection and working drawings. Also isometric and cabinet projections, intersections and develop-

ments. Detailing from models, cuts and specifications. Text: French: "Engineering Drawing."

14. Descriptive Geometry. Four hours. Second semester.

Aims to develop the habit of analytic thinking by dealing with the spatial relations of points, lines and planes, followed by a consideration of surfaces and solids and their relations to points, lines and planes and to each other. This involves intersections, developments, shades, shadows and perspective. Text: Miller, "Descriptive Geometry." Prerequisite: Plane and Solid Geometry and Mech. Dr. 13.

15, 16. Machine Drafting. Two to ten hours each semester.

A course placing emphasis upon technique, speed and accuracy in the making of drawings in harmony with standard drafting room practice. This course is very flexible in the matter of actual problems undertaken in order to be adapted to the needs of individual students. The use of catalogue studies and technical references is encouraged as aids to practical drafting work in machine design, automobile motor design, and installation plans. Students may receive a special draftsman's certificate upon completion of the work in the Vocational Group and upon attainment of the required proficiency in drafting. Students registering for the first time should provide calipers and a 6-inch steel scale. Texts: G. E. D. Plate Specifications (University of Illinois); also French, "Engineering Drawing" and "Machinery's Handbook." Prerequisite: 3 hours of Mech. Dr. 1.

17. Architectural Drafting. Three to six hours. First semester.

For students with little or no architectural drafting experience. Symbols and conventions, lettering, planning and designing of residences, including complete working drawings. Text: Seaman, "Progressive Steps in Architectural Drawing." Prerequisite: Three hours of Mech. Dr. 1.

18. Architectural Details. Three to six hours. Second semester.

This course involves advanced residence design including details of all standard forms of construction in frame, masonry or fireproof buildings. Measured sketches are made from actual buildings under construction, which serve as a basis from which to develop large scale detailed drawings. Texts: Radford, "Architectural Details;" Martin, "Details of Building Construction;" Kidder, "Building Construction and Superintending." Prerequisite: M. Dr. 17.

20. Machine Design. Five hours. Second semester.

This course includes making drawings of standard machine parts, making sketches and drawings from machines, and assembly drawings from working drawings, and instruction in the use of the slide rule. This is followed by a study of machine construction, including calculations for proportioning and designs of bolts, keys, journals, bearings, couplings, feed screws, gears and cams, with a study of tooth forms. The course aims to prepare students for further work in engineering schools. Each student should own a slide rule. Text for Engineers: Leutwiler, "Machine Design." Prerequisite: 6 S. H. of Mech. Dr. 15, 16; Woodwork 15 or parallel: Mathematics 22; Metal Work 20; Physics 22. Text for Vocational Draftsmen: Halsey, "Handbook for Machine Designers, Shopmen and Draftsmen." Prerequisite: Mech. Dr. 9; 6 S. H. of Mech. Dr. 15, 16; Woodwork 15 and Metalwork 19.

23. Perspective. Four hours. First semester.

A study of the principles of one and two point perspective as applied to simple geometric objects, to architectural forms, and to entire buildings, including the

perspective of shadows, and pen and ink rendering. Text: Frederick, "Simplified Mechanical Perspective." Prerequisite: M. Dr. 17.

24. Architectural Design. Four hours. Second semester.

A study of the elements of architecture, the classic orders and their application to such problems as libraries or bank buildings. Also a study of brief and accurate methods for determining conventional shades and shadows. Texts: Ware, "The American Vignola;" Mc Goodwin, "Architectural Shades and Shadows." Prerequisite: M. Dr. 18, 23.

25-26. History of Architecture. Two hours each semester.

A course tracing the development of the art of building through the stages of evolution from primitive to modern times with special emphasis on periods up to and including the Byzantine. Text: Kimball & Edgell, "History of Architecture." Prerequisite: Sophomore standing in architecture. No fee.

28, 29. Materials of Construction. One hour second semester of first year.
Three hours, first semester of second year.

For architectural engineering students. Technology of materials, including physical properties, process of manufacture and uses in construction. All standard forms of construction are detailed. Outside or measured drawings of details of construction and written reports of buildings under construction. Texts: Radford, "Architectural Details;" Martin, "Details of Building Construction;" Kidder, "Building Construction and Superintending." Prerequisite: M. Dr. 13. No fee for 28; regular fee for 29.

31. House Construction. Two hours. First semester.

An elementary course including (a) lectures on planning with reference to convenience, cost, site, cellar, foundation, materials, framing, finish, plumbing, heating, lighting, furnishing, decoration; (b) planning a house to meet given conditions. Text: Robinson, "Domestic Architecture."

33. Advanced Architectural Design. Four hours. First semester.

A continuation of course 24 involving problems in architectural composition and in water color rendering. This course is presented by means of lectures, individual criticisms and library research. Prerequisite: M. Dr. 24.

METALWORKING

MR. ALLEY, MR. BECKER, MR. TRAVIS

1, 2. Machine Arithmetic. Five hours each semester.

The solution of simple practical problems that occur in the machine shop and the drafting room. Text: Breckenridge, Mersereau & Moore, "Shop Mathematics."

3, 4. Machine Mathematics. Five hours each semester.

A continuation of 1, 2 with special reference to simple algebra, geometry, graphs, trigonometry, logarithms, etc., such as machinists and draftsmen need to know. Text: Norris & Craigho, "Advanced Shop Mathematics." Prerequisite: Metal 1, 2, or its equivalent.

7, 8. Auto Machine Shop. Two hours each semester.

This course is for students taking the automobile course. After elementary instruction in the use of the machines and equipment is completed, the making of parts in the repair of the automobile and the building of engines is taken up. The elementary portion of this course is similar to the elementary part of course 17. Fee \$3.00.

9. Auto Forging. Three hours. First semester.

A special course for automobile students giving the elements of forging and leading into the making of regular and special tools for use in garage work as well as the repairs for cars overhauled in the garage. Fee \$3.00.

10. Brazing and Soldering. Three hours. Second semester.

A course primarily for automobile students, although other students may enter the work. General work in the elements of brazing and soldering is given and practical application is made to radiator repair work for the automobile course. Some work with the oxy-acetylene torch for cutting and brazing light material is given. Fee 75c per semester hour.

11. Bench Metalwork. Three hours. First semester.

A course for prospective industrial teachers. The work covers problems in iron and steel which can be made without the regular machine shop equipment. The processes include filing, drilling, turning and polishing executed with hand tools on the bench or a speed lathe. The intent of the course is to give experience in light metalwork that may be used in the public school shop where no regular machine shop equipment is available. Fee \$1.00 per semester hour.

13. Sheet Metalwork. Two hours. First semester.

Drawing patterns for and making some tinsmithing problems in pipe joining, architectural and ornamental work and vessel construction. Fee \$1.00 per semester hour.

14. Foundry Practice. Two hours. Second semester.

This course gives a working knowledge of the processes of making molds, core making, and the care and use of a brass furnace. Fee \$2.00.

15. Forging. Three hours. First semester.

This course includes instruction in building and handling the forge fire; in the use of the hammer, anvil, tongs and the other tools of the forge shop; and the forging and welding of iron and steel. It also includes forging, hardening and tempering tools. Fee \$1.00 per semester hour.

16. Advanced Forging. Three hours. Second semester.

A course in the more difficult work involved in tool forging, welding, use of power hammer, and practical repair problems. Fee \$3.00.

17, 18. Machine Shop. Two to ten hours each semester.

This is a beginning course in general machine shop practice. Work at the bench will be given along with the general use of the machine equipment. So far as is practical, problems of an industrial nature are given for the student to work on. While the assignment of jobs may not be the same in all cases, an attempt is made during the year's work to have each student cover the essential processes that are used in machine shop practice. The instruction is in a large part of an

individual nature, so that the needs of the individual student can be met. The work is arranged to fit men to become machinists and draftsmen as well as for the college student who desires credit in this work. Fee \$3.00.

19, 20. Machine Shop. Two to ten hours each semester.

This course is intended primarily for students who expect to be machinists or machine draftsmen. It is planned to familiarize the student thoroughly with the use of machine tools and machine construction and to give him more intimate knowledge of the work. So far as possible the responsibility of lay-out and construction is given to the student. Fee \$3.00.

21. Jigs and Fixtures. Five hours. First semester.

A specialized course in Machine Shop practice dealing with the production of articles by modern methods. Students will design, make and use necessary jigs and fixtures.

22. Millwrighting. Five hours. Second semester.

A study of layouts for machinery installation, including floor plans, pulleys, shafting and belting for typical machine shops. The practical work will consist of taking down and putting up shafting, relining a shaft, placing of pulleys and countershafts, and setting machines.

WOODWORKING

MR. JOHNSON, MR. HURFF

This department offers courses for three classes of students: Teacher Training, Vocational, and Engineering. These courses are planned to give a knowledge of tools, machines, and materials; to teach processes of caring for and using them; to form correct habits of work; and to present modern sources of information.

Students desiring advanced credit in any of the following courses should see one of the instructors in this department on the registration day of the first semester presenting their credentials and proving their proficiency in the course or courses in question.

11. Wood Technology. Three hours. First semester.

Fundamental woodworking processes, and the proper care and use of tools are taught. A study is made of the character of woods, tree identification and related materials used in woodworking. Text: Noyes, "Handwork in Wood." Fee \$2.00.

12. Wood Finishing and Upholstering. Three hours. Second semester.

(a) Instruction in the mechanical preparation of wood before staining, the preparation, use and application of stains, fillers and surface or finish coats such as wax, oil, shellac and varnish, including French polishing and rubbed varnishes. Wood samples and larger projects are finished. Fee \$2.00.

(b) In upholstery the making of plain and spring seats will be taught, including a study of webbing, burlap, springs, stuffing, and covers, also the use of reed in caning. Fee \$3.00 and up.

13, 14. Woodworking Machinery. Ten hours each semester.

In this course emphasis is placed on practical work with machinery. The shop is equipped with cut-off saw, four circular saws, band-saw, two jointers, two planers, hollow-chisel mortiser, boring machine, shaper, belt sander, tenoning machine, and glue facilities. The shop is organized as a producing factory with cost system. Instruction is given through demonstrations and practical work. Students are taught band-saw brazing, setting and filing, care of circular saw and practice in gumming, setting, swedging, jointing and filing. From two to six hours a day. Prerequisite: Wood, 11, 12. Fee \$3.00.

15. Elementary Patternmaking and Molding.

Three hours. First semester.

A beginning course giving the fundamentals of patternmaking. Patterns are made involving the following patternmakers' allowances: draft, finish, shrinkage, warp and shake. Emphasis is placed on proper procedure and accurate workmanship. A variety of patterns are molded. Fee \$2.00.

16. Advanced Patternmaking. Three hours. Second semester.

Patterns are made for the following kinds of castings: pipe fittings, pulleys, valves and gear wheels. Follow board mounts are made as well as special patterns required in the Machine Shop. Fee \$2.00.

18. Carpentry. Three hours. Second semester.

A course in planning, designing and erecting buildings such as garages, or small houses, including the making, in the mill-shop of doors, frames, sash and interior trim for the building to be erected. Emphasis will be placed upon (a) training in the use and care of carpentry tools, (b) saw filing and chisel grinding, (c) figuring board measure, and making estimates on labor and material, (d) methods of constructing frame buildings and applying interior trim, (e) names and methods of applying builders' hardware, (f) stairwork, (g) roof construction. Fee \$2.00.

20. Shop Mathematics. Two hours. Second semester.

This is an advanced survey course for Teacher Training students. Such problems are selected as occur in Wood-working, Carpentry, Wood-turning, Pattern-making, Foundry practice, Forge work, and short methods. Text: Breckenridge, Mersereau, Moore, "Shop Problems in Mathematics."

21, 22. Woodworking Machinery. Ten hours each semester.

This is a continuation of Course 14. In this course students get some experience as foremen, and during the spring quarter are given work in methods of teaching woodworking in secondary and vocational schools. Prerequisite: Woodwork 13, 14. Fee \$3.00.

26. Furniture Making. Three hours. Second semester.

A study of furniture making emphasizing principles of good construction, involving processes and proportion of parts, including the application of paneling, inlaying and turning as decorative features. Students execute a design made in Woodwork Design. Prerequisite: Woodwork 11, 12. Fee \$3.00 and up.

28. Wood-Turning. Three hours. Second semester.

This course includes a study of the historical development of the lathe, thorough drill in the cutting action of turning tools and methods of holding them; projects in spindle, face plate, chuck and mandrel turning, finishing and polishing. Fee \$2.00.

LIBRARY METHODS

MISS GUINN

The course in Library Methods is open only to those registered in the College Department. Its purpose is (a) to present library methods to the general student in such a way as to enable him to use with advantage any properly arranged library; (b) to assume the duties of an assistant to a librarian; (c) to prepare prospective teachers to organize and supervise high school libraries; (d) to aid in the better use of printed matter by presenting principles of selecting best books, magazines and printed matter for practical use for special lines of work and different types of libraries.

11. Library Course for Teachers. Two hours. First semester.

Organization and administration of school libraries. An elementary course in library science planned to qualify students preparing for teaching, to undertake the supervision of high school libraries and to give instruction to high school students in the use of books and libraries. The course will include selection and buying of books, reference works, elementary classification, cataloging, library records, equipment, aids and allied subjects.

12. Library Science. Two hours. Second semester.

History of Libraries and Book-Making. Selection of books. Problems in selecting and buying.

Library Economy. Ordering books, accessioning, classification, Cutter-Sanborn author table for author numbers, ordering and use of Library of Congress cards, cataloging, shelf list, Cutter rules for a dictionary catalog, card catalog, mechanical preparation of book for use, shelving, loan administration, periodicals, the ordering, checking and binding; recasing, binding and mending of books, copyright laws.

Reference Works. Reference books studied in groups as handbooks for general information, statistics, quotations, encyclopaedias, dictionaries, etc., with practical problems on the books studied.

General Reference. Use of card catalog, periodicals, sources of library aids, Government publications.

Bibliography. Lectures and problems in the elements essential to an intelligent use of bibliographic aids in a modern library.

MATHEMATICS

MR. COMSTOCK, MR. GAUT, MISS BUCKEY (Part time)

This department provides for the needs of several classes of students. (1) Engineering students; (2) Students who wish to continue the study of Mathematics; (3) Students who intend to teach Mathematics in Secondary school; (4) Those whose main interests lie in other fields.

11, 12. Introduction to Mathematical Analysis. Five hours each semester

A course in which fundamental topics in Calculus, Analytic Geometry, Trigonometry and College Algebra are combined.

13. Algebra. Two hours. First semester.

All students taking course 11, 12 who present but one year of algebra for entrance must take this course.

14. Solid Geometry. Two hours. Second semester.

This course is given to accommodate students who do not present the subject for admission.

15. Socialized Mathematics. Three hours. First semester.

A course arranged for students who do not take courses 11, 12 or 13, 14, but who desire a better mathematical equipment for the study of the Social Sciences.

16. Outline Course. Three hours. Second semester.

A course giving a simple treatment of topics of Algebra, Trigonometry, Geometry and Calculus. Open to those who do not wish to continue in Mathematics but who desire some knowledge of the methods and concepts of more advanced Mathematics.

21, 22. Analytic Geometry and Differential and Integral Calculus.

Five hours each semester.

This course is a more intensive study of the geometrical properties of loci and the processes and applications of the Calculus. Open to all students who have completed courses 11, 12.

26. Analytic Mechanics. Three hours. Second semester.

Open to students who have had or are taking Course 21, 22.

28. Plane Surveying. Three hours. Second semester.

Open to students who have had courses 11, 12; or 16.

31, 32. Differential Equations. Three hours each semester.

Open to students who have completed Course 21, 22.

33. Fundamental Concepts. Two hours. First semester.

This course discusses the fundamental concepts of Algebra and Geometry. It should be taken by all students who intend to teach Mathematics. Open to students who have completed Course 21, 22.

34. Projective Geometry. Three hours. Second semester.

Open to students who have completed Course 21, 22.

35. Theory of Equations and Determinants. Three hours. First semester.

Open to students who have completed Course 21, 22.

36. History and Teaching of Mathematics. Two hours. Second semester.

Open to students who have completed Course 21, 22. Courses 11, 12, 21, 22; 33, 34; 35, 36 should be taken by all students who plan to teach Mathematics in secondary schools.

41. Descriptive Astronomy. Three hours. First semester.

Open to Juniors and Seniors who have completed Courses 11, 12 or 15 or 16.

MECHANICAL ARCHITECTURAL AND MACHINE DRAWING

(See page 46)

METALWORKING

(See page 49)

MODERN LANGUAGE

MISS LYONS, MISS HOPPER, MISS MANOSALVA

The department aims to develop a thorough knowledge of the essentials of grammar, an accurate reading ability, a correct pronunciation, as much oral and aural facility as time will allow, and an acquaintance with the history and an appreciation of the literature of the people which the language studied represents.

FRENCH

11-12. Beginners' Course. Five hours each semester.

Essentials of grammar; composition; conversation; pronunciation. Reading of easy modern prose. Primarily for freshmen.

11y-12y. Elementary Course. Four hours each semester.

Grammar review; composition; conversation; pronunciation. Reading of modern plays and novels. Prerequisite: One unit of high school French.

Given only if desired by sufficient number.

21-22. Intermediate Course. Four hours each semester.

Modern prose, poetry and drama. Intensive and rapid reading; composition; syntax; conversation. Prerequisite: Course 11-12 or two years of high school French.

31-32. French Drama. Four hours each semester.

Intensive and rapid reading; reports; composition; syntax. Prerequisite: Course 21-22 or three years of high school French.

33-34. Conversation.

Two class exercises a week; credit one hour each semester. Prerequisite: Course 31-32.

41-42. French Non-Dramatic Literature of the 19th Century.

Three hours each semester.

Intensive and rapid reading; reports. Prerequisite: Course 31-32. (Not offered in the same year with course 43-44.)

43-44. General Survey of French Literature. Three hours each semester.

A study of French Literature by periods from the beginning to the present time. An advanced course open to seniors. (Not offered in same year with course 41-42.)

GERMAN

11-12. Beginners Course. Five hours each semester.

Essentials of grammar; composition; pronunciation; aural and oral practice. Reading of easy modern prose. Primarily for freshmen.

21-22. Intermediate Course. Four hours each semester.

Grammar review; composition; oral and written paraphrases. Reading of modern prose and one classical drama.

SPANISH

11-12. Beginners' Course. Five hours each semester.

Grammar; Composition and conversation. Reading of easy Spanish prose. Primarily for freshmen and sophomores.

21-22. Intermediate Course. Four hours each semester.

Grammar review; composition and conversation. Reading of modern Spanish and Spanish-American authors. Intensive reading in class and reports and written resumes on outside reading. Prerequisite: Course 11-12 or two years of high school Spanish.

31-32. Introduction to Spanish Literature. Three hours each semester.

Reading of modern authors and the classics. Oral and written composition. Practice in business correspondence and conversation. Prerequisite; Course 21-22.

PHYSICAL TRAINING

MR. ROBERTSON, MISS BUSWELL, MR. FAHL

The department of Physical Training has supervision over all Gymnastic and Athletic activities. It is the aim of the department to give the students such exercises, games and sports as will best create and maintain a vigorous physical health. It endeavors to reach a large number of students, especially the weak and undeveloped, and to give exercise that will be within the capacity of each student. For description of the Gymnasium see page 17.

FOR MEN

Courses for men include: (1) Marching, (2) Calisthenics, (3) Light Apparatus work, (4) Athletics, (5) Hygiene.

FOR WOMEN

Elementary class work is given in Swedish Gymnastics:

(a) To awaken a healthful interest in bodily exercise, and to foster a condition of vigorous health and proper health habits.

(b) To give a fundamental training which will develop motor skill, strength, self-control, and self-confidence.

(c) To correct the common physical defects, with special attention to faulty posture.

The Advanced Course includes carefully graded work with apparatus, Folk Dancing and Aesthetic Dancing.

Sports are encouraged—Tennis, Field Hockey, Basketball and Indoor Baseball.

A course in Hygiene is given.

PHYSICS

DR. SWAIM, MR. SHALKHAUSER

The courses offered in this department are outlined to meet the needs of three classes of students: First, those desiring the work for its informational value, and as supplementary to other courses; second, those intending to pursue the study of engineering or to continue their study of physics in a graduate school; third, those interested in vocational courses.

3, 4. Electricity and Magnetism. Five hours each semester.

The work of the first semester includes the study of direct current and its industrial applications; that of the second semester includes the study of alternating current and its industrial applications. In this course are presented the fundamental facts relating to electricity and its present day applications in a straight-forward way for the study of any man who desires to acquire a working knowledge of the subject. It includes the calculation of electromotive force, current and power relations; the study of types of construction, characteristics and operation of direct current generators and motors, alternating current generators, induction motors, converters and transformers. This course is open to all students. Fee \$4.00.

11, 12. General College Physics. Five hours each semester.

This course is intended primarily for pre-medical and non-technical students, and is as non-mathematical as is consistent with a logical development of the subject. Students wishing only a general view of the principles of physics, should elect this course. Prerequisites: Algebra and geometry. Fee \$4.00.

13, 14. Household Physics. Two hours each semester.

This course is intended for students of home economics, and seeks to make a thorough study of all the principles of physics as applied in the modern home. Fee \$1.00.

21, 22. Advanced General College Physics. Five hours each semester.

This course gives an analytical development of the subject from the modern view point, and is intended for students of engineering, mathematics, physics and chemistry. Prerequisites: Mathematics 11, 12. Fee \$2.00.

23, 24. Applied Physics. Three hours each semester.

This course is intended for students of manual arts, and seeks to make practical application of the principles of physics to industrial lines of work. The theory of these principles is first studied in lectures, then demonstrated and worked out by the student through laboratory work and the use of commercial apparatus. Fee \$1.50.

31-32. Light, Heat, Electrical Measurements. Five hours each semester.

About twelve weeks are devoted to each subject. The work in light includes diffraction, interference, refraction, dispersion and polarization; that of heat includes thermometry, expansion, vapor pressure, viscosity, conductivity, colorimetry and mechanical equivalent of heat; that of electrical measurements includes high and low resistance, electromotive force, capacity, self induction, mutual induction and hysteresis. Prerequisites: Physics 21, 22 and Integral Calculus. Fee \$4.00.

33. Electricity and Magnetism. Five hours. First semester.

This course includes the theory and operation of dynamos, motors, transformers, wireless telegraph, and transmission circuits containing resistance, inductance and capacity. Prerequisites: Physics 21, 22 and Integral Calculus. Fee \$4.00.

34. Mathematical Physics. Five hours. Second semester.

The material for this course will be chosen from the various fields of physics and aims to acquaint the student with the mathematical derivations and interpretations. This course connects the work of College Physics with that of the graduate school. Prerequisites: Physics 21, 22 and Differential Equations. Courses 31, 32 will alternate with Courses 33 and 34.

POLITICAL SCIENCE, SOCIOLOGY

MR. SCHROEDER

POLITICAL SCIENCE

11-12. American Government. Two hours each semester.

A course designed to acquaint the student with the fundamentals of his government, both federal and local.

21. Municipal Government. Three hours. First semester.

This course deals with the details of American Municipal Administration. Application of the principles to the cities of the country is sought.

22. Comparative Government. Three hours. Second semester.

A study of the governments of several European nations with emphasis upon points of similarity and contrast with our own.

23-24. Introduction to Political Science. Two hours each semester.

This course deals with the philosophy which underlies the organization called the State. Points of emphasis are the origin, nature, functions and organization of the State.

25-26. International Law. Two hours each semester.

Some of the well established fundamentals in this rapidly changing field are studied.

SOCIOLOGY

21. Introduction to Sociology. Three hours. First semester.

A course designed to acquaint the student with the general field, with special emphasis placed upon the relation of Sociology to the allied sciences. The relation of theory to the major social problems is also a point of emphasis. Course repeated second semester.

23. Contemporary Society. Two hours. First semester.

A survey of the general social field with special reference to the problems of industry, the family, the school, the church, and racial characteristics.

24. Social Work. Two hours. Second semester.

A course designed especially for those who plan as a vocation some line of social activity. It will include a study of race, immigration, charities and correction. Methods of social case work will be studied and some application will be made to local conditions.

31. Social Theory. Two hours. First semester.

A study of social thought from the time of Plato and a consideration of the underlying principles of human relationship and their development.

32. The Family. Two hours. Second semester.

A history of family life leading to an examination of the position of the family in society today.

33. Psychological Sociology. Two hours. First semester.

A study of the group mind with special reference to communication, stimulation and response, and social control.

34. Eugenics. Two hours. Second semester.

A detailed study of the psycho-physical characteristics and predispositions. Prerequisites are Sociology 21, and Biology 11.

35. Educational Sociology. Two hours. First semester.

Covering the broader field of education from the social viewpoint, including study of a number of institutions not formally educational.

36. Urban and Rural Sociology. Two hours. Second semester.

An examination of the problems peculiar to our cities as contrasted with those of rural districts, with an outline of a program for each

37. Social Teachings of Jesus. One hour. First semester.

An application of Christian principles to the problems of the day.

WOODWORKING

(See page 51)

BRADLEY CONSERVATORY OF MUSIC

FORMERLY THE PEORIA MUSICAL COLLEGE

The Institute has long felt the need of a Department of Music and so was quick to act when the opportunity came to add a School of Music, already thoroughly organized and with an established reputation as a school equal, if not superior to any in Illinois. In the fall of 1920 The Peoria Musical College became a department of the Institute under the name, The Bradley Conservatory of Music. The Peoria Musical College was founded in 1911, by Franklin Stead, and under his direction quickly gained high rank. The aim of the school has been to maintain the highest standards in all branches of study and to provide at nominal expense, courses of instruction which would be most thorough and comprehensive.

The modern and systematic training employed from the beginning of the Preparatory Courses, through the completion of the Post Graduate Courses has brought the College merited recognition as an institution of great worth. Its educational value and high ideals have been felt, not alone in Peoria but throughout Illinois and surrounding states.

The school is continuing along the same lines under the new name, Bradley Conservatory of Music. All departments are retained and additions made, and under the general supervision and support of such a substantial institution as the Bradley Polytechnic Institute, The Bradley Conservatory of Music is rapidly becoming not only one of the largest and best equipped departments of the Institution but also one of the leading schools of music in the country.

The Conservatory occupies a building on the Bradley campus, which was remodeled and converted into studios, director's office, practice rooms, reception rooms, and a recital hall. The Institute chapel is used by the Conservatory for all concerts and recitals and is equipped with new grand pianos and the Avery memorial pipe organ, a most welcome gift to the Institute from the Avery family.

The faculty members are representative of the highest type of musical instruction. They have had the advantage of study with the best European and American masters and are teachers of wide experience.

It is a matter of especial congratulation that Franklin Stead continues as director of The Bradley Conservatory of Music. It would be difficult for the Institute to find his superior. He is especially fitted by temperament, natural ability and musical training for this work. He has had a long period of successful experience as Head of Schools of Music in Yankton College and at the Illinois Woman's College, before establishing the Peoria Musical College.

THE CONSERVATORY FACULTY

FRANKLIN STEAD, DIRECTOR.....	<i>Piano, Organ, Theory, Composition</i>
MABEL RIGGS STEAD.....	<i>Piano</i>
ADELAIDE JANSSEN.....	<i>Piano</i>
MRS. DUDLEY CHASE CHAFFEE.....	<i>Piano—Head of Children's Dept.</i>
ELIZABETH MEEK.....	<i>Piano—Assistant in Children's Dept.</i>
MRS. EILLEEN FAGINKRANTZ.....	<i>Piano—Assistant in Children's Dept.</i>
BEULA COLLINSON.....	<i>Piano—Assistant in Children's Dept.</i>
ADELAIDE WHITE.....	<i>Piano—Assistant in Children's Dept.</i>
INGENIUS BENTZAR.....	<i>Voice</i>
EDITH CLINEBELL.....	<i>Voice</i>
IGNATIUS TELLO.....	<i>Violin—Ensemble</i>
MAY V. ULRICH.....	<i>Violin</i>
PAUL BURKE.....	<i>Violincello</i>
RAYMOND RHEAUME.....	<i>Saxophone—Clarinet</i>
ELMER ARONS.....	<i>Cornet—Orchestral Instruments</i>
DANELIA JANSSEN.....	<i>Public School Methods</i>
NADINE V. SHEPARDSON.....	<i>Dramatic Art—Expression</i>
NAOMI LAGRON.....	<i>Modern Languages</i>
GRACE FAHNESTOCK.....	<i>Conservatory Office</i>

COMPLETE COURSES OFFERED

The courses of instruction offered by The Bradley Conservatory of Music are comprehensive and planned with reference to meeting the requirements of every student. The courses in *Piano, Organ, Voice, Violin and Violoncello*, are divided as follows:

- I. Preparatory.*
- II. Intermediate.*
- III. Advanced (Soloist's or Teacher's Diploma.)*
- IV. Post Graduate, Degree "Bachelor of Music."*

Students may enter any of the above courses after satisfactory examination in all requirements.

THEORETICAL COURSE

This course, which is required for graduation in any solo instrument or the voice, includes Ear Training, Elementary and Keyboard Harmony, Counterpoint, Composition, Canon and Fugue, History of Music, General Theory and Musical Analysis.

OTHER COURSES OFFERED

Normal Classes, Ensemble Playing, Interpretation Classes, Sight Singing, Chorus Work and Orchestral Classes.

FULL COURSES ARE ALSO OFFERED IN

Public School Music, Expression and Dramatic Art, Modern Languages.

SPECIAL CHILDREN'S DEPARTMENT

Great emphasis is placed upon the work in this department and it has become one of the strong features of the school.

CLARINET, SAXAPHONE, CORNET AND TROMBONE

The Conservatory offers a course of instruction in each of the above instruments.

MUSIC CREDITS

Some of the courses in the Conservatory may be used for credit towards the A. B. or the B. S. degrees. For regulations in regard to credit, see page 11.

SEND FOR INFORMATION

For full particulars as to courses of instruction, tuition rates and general information, send for the Bradley Conservatory of Music Special Catalogue describing the work of the Conservatory.

THE HOROLOGICAL DEPARTMENT

This department gives instruction in watch-making, jewelry, engraving and optics. It was established in 1886, and is therefore one of the oldest trade schools in the United States. At the founding of Bradley Polytechnic Institute in 1897, it was made a department of that school. A new building of Bedford stone was erected upon the Bradley campus, designed by the architect to meet the needs of this department. It is the only building in America planned especially for a Horological School and devoted exclusively to that work. It is beautiful in architecture, especially adapted in design to the needs of Horological students, and equipped with everything required to make instruction convenient and practical. There are 200 outside or window-lit benches, and 75 inside benches with room for a large increase when needed. Gas and electricity are supplied at every bench.

FACULTY

The Horological Department has its own Faculty, each member an expert in his line.

ALLEN T. WESTLAKE, DEAN	Engraving and Optics
FRED E. BROWN	Finishing, Repairing and Drawing
CHAS. E. CARRIER	Finishing and Repairing
WILLIAM F. J. FICKEISEN	Engraving
LIONEL HERGET	Engraving
F. D. FENTON	Engraving
GEORGE J. WILD	Elementary Watchwork
OTTO T. ZASPEL	Elementary Watchwork
LEMOINE E. GALBRAITH	Elementary Watchwork
WILLIAM J. GREATHOUSE	Elementary Watchwork
MACON A. BROCK	Elementary Watchwork
ROBERT CLAFFY	Jewelry
CHAS. E. HOXWORTH	Jewelry
CHARLES T. BROBST, M. D.	Lecturer in Optics
JUDSON L. CADWALLADER	Cashier
MARY E. THOMPSON	Material Room
ADAH H. COMSTOCK	Assistant Material Room
ALMA L. MITCHELL	Dean's Office
MABEL A. ETAUGH	Dean's Office

COURSES OF INSTRUCTION

Only a few of the more important topics can be mentioned in the space allowed here. For full details consult the special Horological catalog.

Elementary Watchwork. Filing and making of small tools. Use of grinding materials, coloring and polishing; lathe and escapement work of all kinds; thorough training in all fundamental processes of watchmaking.

Finishing. Study of the lever; duplex cylinder and chronometer escape-ments; making or repairing of lost or broken parts; cutting and fitting escape wheels; study of chronographs, repairing watches and other advanced work; adjusting in temperature, position and isochronism.

Jewelry. Thorough training in the gold and silversmith's branch of the trade; practical knowledge of the art of working precious metals and repairing jewelry of all kinds.

Optics. A short course in the practice and theory of optics.

Clock Work. Repairing all forms of clocks, including calendar and French clocks.

Drawing. Theoretical escapement; design of new work.

Engraving. Thorough training in design and the use of the graver.

Lectures. Weekly lectures are given upon the theoretical and practical aspects of the trade.

Evening Classes are held for those who wish to hasten their work.

The Library contains standard works on Horology, Optics, Jewelry and Engraving.

The Horological School is open throughout the year and students may enter at any date. Instruction is individual. Women as well as men may take these courses. A student who so desires may take part of his work in Horology and a part in general education. There is a great demand for those trained at the Bradley Horological School. Send for Illustrated Catalog giving full details. Address: Bradley Horological School, Peoria, Illinois.

CONVOCATION, 1921

VOCATIONAL COURSES

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SCIENCE

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The Degree of Associate in Literature is conferred upon the following students.

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The Diploma is conferred upon the following who have completed the work of the Teachers' Courses:

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MANUAL TRAINING

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FOUR YEAR COURSES

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Sparks, Joseph P.; Hazzard, Lucia.

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Hoagland, Louise G.; Davison, Claude L.

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Normand L. Hoerr.

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Davison, Claude L.; Eagleton, Lee O.; Flanagan, Marguerite; Hazzard, Lucia; Hoagland, Louise G.; Kelly, Howard E.; Sparks, Joseph P.

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Brungard, Marie F.; Daly, Eunice C.; Flack, Gertrude L.; Fromme, Dorothy E.; Moore, Lillian C.; Peck, Ruby; Strine, Mildred D.; Tirmenstein, Paul E.; Voelpel, Wm. F.

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COLLEGE

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Cress, Margaret E.	Peoria	LaVoy, Ayling A.	Minonk
Crowell, Brooks.	Peoria	Leach, John C.	Chesterfield
Daly, Bernadine.	Peoria	Light, Frances M.	Chrisman
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Eichorn, Pauline K.	Peoria	Marksity, Theodore E.	Peoria
Elliott, Harold R.	Peoria	Mee, Charles L.	Peoria
Elmore, Athol.	Mason City	Mehl, Fred O.	Peoria
Erickson, Lyle W.	Wyanet	Meradith, Paul W.	Delavan
Ettinger, Cy S.	St. Paul, Minn.	Merkle, Mildred E.	Peoria
Fair, Margaret E.	Pekin	Miles, George N.	Peoria
Few, Charles.	Delavan	Miller, Emaline.	Peoria
Fieselma, Elizabeth R.	Peoria	Millner, Eugene B.	Peoria
Firth, Grey.	Green Valley	Mills, Gladys E.	McNabb
Fletcher, Harold A.	Wyanet	Mullen, Gifford A.	Chandlerville
Floyd, Truman W.	Peoria	Neikirk, George A.	Brimfield
Forster, H. Meryl.	Peoria	Newell, Leland R.	Washburn
Foster, Helen E.	Oak Hill	Oakley, Frederic R.	Peoria
Fox, Marguerite E.	Washburn	Pearson, Lyle F.	Morrison
Friedrich, Ellis G.	Chillicothe	Pease, Alyce H.	Peoria
Fritsche, Sylvan V.	Peoria	Peeken, Roy M.	Minonk
Fruit, Majorie J. O.	Oregon	Peters, Wallace M.	Peoria
Frye, Eleanor A.	Alta	Peterson, Viola C.	Peoria
Galowich, Louis J.	Peoria	Pitzer, Leroy A.	Peoria
Garlick, Alfred J.	Oxford Junction, Ia.	Proctor, Edna D.	Peoria
Gay, Kenneth E.	Pekin	Prouty, Ruth M.	Princeville
Gordon, Hope L.	Alta	Rawson, Edythe M.	Peoria
Green, Mabel S.	Peoria	Redfern, Carl A.	Waverly
Gross, Jacob.	Hays, Kans.	Reeder, C. Darwin.	Pekin
Grubb, Drusilla A.	Rushville	Reichel, Robert T.	Peoria
Haefner, Carl F.	Peoria	Ringness, Theodore R.	Peoria
Haile, Harvey C.	Farmington, Mo.	Risser, Emerson C.	El Paso
Harding, Weston.	Peoria	Robison, Verla M.	Morton
Harris, James M.	Peoria	Ropp, Nellie L.	Washington
Hartwig, Carl E.	Peoria	Rose, James H.	Ipava
Hartz, Wilson H.	Washington	Ruch, Alan.	Peoria
Hayward, Dorothy E.	Peoria	Sayre, Mabel E.	Chrisman
Hedstrom, Laura.	Peoria	Schaad, Lila M.	Chandlerville
Helmick, Albert L.	Peoria	Schalkhauser, Herbert E.	Loganville, Wis.
Herod, Ruth L.	Indianapolis, Ind.	Schmidt, Walter H.	Peoria
Herod, Walter W.	Washburn	Schmitt, George E.	Peoria
Hogan, William H.	Pekin	Shuttleworth, Cornelius.	Pekin
Herschel, Helen L.	Peoria	Skinner, Freeman A.	Clinton
Holt, Thomas E.	Peebles, O.	Sonalio, Joseph N.	Hibbing, Minn.
Horsley, Mary L.	Chrisman	Sorenson, Mary L.	Toulon
Hotchkiss, George M.	Peoria	Standard, Troy R.	Toulon
Howell, Herschel G.	Green Valley	Starbuck, Dorothy A.	Peoria
Huffman, Helen L.	Mason City	Starrett, Luster L.	Peoria
Hughes, Erma H.	Virginia	Stout, Helen.	Peoria
Hulin, Arthur J.	Peoria	Sumner, Eugene E.	Pecatonica
Ireland, Harrison B.	Washburn	Swanson, Carl R.	Gibson City
Isch, Walton B.	Peoria	Taylor, Leila B.	Virginia
Jacob, Salome J.	Peoria	Thoman, Sarah M.	Peoria

Tinthoff, Fred S.	Peoria	Washburn, Earl F.	Peoria
Tjaden, Heike M.	Washburn	Whitfield, Clarence R.	Peoria
Tobias, Eva T.	Peoria	Williams, Claude O.	Havana
Trautvetter, James W.	Peoria	Williams, Earl W.	Tonica
Twoedy, Roberta M.	Princeton	Wolf, Elsie M.	Peoria
Vogel, Angela T.	Peoria	Wolf, J. Byrns.	Peoria
Wallace, Helen L.	Peoria	Woods, Guy H.	Waverly
Walton, Anna E.	Albion	Wortham, Robert W.	Lerna
Warner, Gale A.	Peoria	Zenor, Irene E.	Hennepin

SPECIAL

Clark, Warren A.	Peoria	McClintock, Genevieve G.	Peoria
Dearborn, Imogene.	Peoria	Mattice, Harold H.	Chillicothe
Diekhoff, Folkert R.	San Jose	Morris, John F.	Peoria
Ehrlicher, Mary L.	Pekin	Slocum, Marjorie E.	Peoria
Hire, Herman R.	Peoria	Smizer, Eleanor.	Peoria
Janssen, Elizabeth A.	Peoria	Stone, Genevieve F.	Peoria
Johnson, William L.	Detroit, Mich.	Thoman, William H. Jr.	Peoria
Levy, Rose E.	Peoria	Walker, Neva L.	Peoria

ACADEMY

Bergan, John P.	Peoria	Proctor, Henrietta B.	Peoria
Bourland, Langford T.	Pontiac	Putnam, J. Clifford.	Peoria
Cornell, Clara G.	Peoria	Radley, Richard H.	Peoria
Dalton, M. Willard.	Peoria	Reinhart, Dorothy K.	Peoria
Eckard, Virginia B.	Peoria	Saas, Frederick C.	Peoria
Farnum, Frank C.	Peoria	Smith, Agnes I.	Peoria
Foster, Frank S.	Peoria	Stahl, Fred J.	Peoria
Friedman, Samuel D.	Peoria	Stowe, Mary W.	Peoria
Fuller, Albert C.	Peoria	Strayer, Arleigh E.	Peoria
Graner, Anita.	Peoria	Taylor, W. Olene.	Peoria
Griffin, John.	Peoria Heights	Turnbull, Frances E.	Peoria
Kneer, Donald L.	Peoria	White, Percy.	Petersburg
McFadden, S. Jeannette.	Peoria	Wolfenbarger, Clara M.	Peoria
Mitchell, Rodney.	Peoria	Younge, Paul A.	Peoria
Packard, Majorie.	Peoria	Zeigler, Willis S.	Butler, Pa.
Pinkerton, John.	Monmouth		

VOCATIONAL

Abbott, Franze G.	Galesburg	Butterfield, Archie L.	Macomb
Abraham, Walter.	Oshkosh, Wis.	Bybee, Glenn D.	Fiatt
Acklin, Joseph C.	Pontiac	Byrne, Harry E.	Bushnell
Allen, Howard.	Peoria	Calder, Charles L.	Peoria
Allen, William.	Cedar Rapids, Ia.	Campbell, John.	Pana
Amsler, Russel L.	E. Peoria	Carrel, Ray R.	Mt. Carmel
Anderson, Benjamin T.	Jewett	Catcott, Herbert W.	Peoria
Appleby, Frank G.	Fairfield	Caudle, Bryan B.	Xenia
Armbright, Howard D.	Peoria	Cawvey, Amos T.	Marion
Arnold, Webster F.	Toluca	Charleson, Merrill E.	Flora
Babcock, Thomas L.	Oshkosh, Wis.	Cleveland, Thomas G.	Logan
Bangert, Louis.	Lincoln	Codding, Roy E.	Wataga
Barger, Carl.	Peoria	Cohen, Max.	Toluca
Barton, Herman E.	Bedford, Ind.	Colvin, Nolan D.	Pearl
Beck, Erwin R.	Peoria	Comer, Robert C.	Peoria
Bell, William M.	Oshkosh, Wis.	Cooper, James E.	Galatta
Bennett, Harry J.	Williamsfield	Correll, Dean E.	Peoria
Berndt, J. William.	Peoria	Correll, Thomas E.	Peoria
Blechl, Joseph L.	Oshkosh, Wis.	Craig, John H.	Frankfort Heights
Bodle, George E.	Bradford	Criss, John F.	Jacob
Brandon, William J.	Quincy	Daley, John A.	Peoria
Branham, Elmer.	Jacksonville	Daniel, Frederick C.	Peoria
Brayton, Ray G.	Peoria Heights	Davis, Malvern.	Sesser
Bresnan, Robert.	Cleveland, O.	Delattre, Frank.	Taylorville
Brown, Cleo C.	Dallas City	Dene, Angelo J.	Riverton
Brown, Floyd.	McNabb	Dewese, David N.	Fairfield
Brown, Robert L.	Springfield	Dini, Philip.	Pekin
Buchele, Lloyd H.	Peoria	Doerr, George A.	Peoria Heights

Doran, Robert	Peoria	McClure, Thomas J.	Bloomington
Dore, Edward P.	Peoria	McCoey, Harold A.	Springfield
Downey, Edsell B.	Bloomington	McFadden, Walter	Cairo
Dovin, John D.	Streator	McLamarrah, Cullen	Toluca
Duchett, Ernest E.	Easton	McWilliams, Leo S.	Vandalia
Ealey, Edward A.	Peoria	Macha, William J. Jr.	Peoria
Ewing, Ralph L.	Westfield	Main, Carson E.	Nebo
Fairrow, John	Beardstown	Mamoser, Frank J.	Teutopolis
Farthing, Samuel N.	Odin	Manley, John P.	Minonk
Fellwock, William H.	Vandalia	Mansfield, Harold D.	Peoria
Ferguson, George G.	Anna	Marcus, Bernard	Peoria
Foster, Frank D.	Keyesport	Mason, Joseph E.	Farmington
Frank, John K.	Peoria	Meeks, Cletis W.	Broughton
Fritchle, Clarence D.	Moline	Meinen, John I.	Pekin
Frosh, Raymond T.	Fairfield	Mendenhall Daniel K.	Peoria
Fudge, James D.	Yale	Merkle, Rudolph	Peoria
Fuller, Charles	Hardin	Miller, Alvin H.	Wyanet
Gasperi, Hopper	Novinger, Mo.	Miller, Claude A.	Bloomington
Gerdes, Elmer E.	Mapleton	Mitchell, James E.	Springfield
Getchius, Chester A.	Oshkosh, Wis.	Moore, Arthur J.	Springfield
Gonterman, Ora A.	Roodhouse	Moore, Clyde F.	Peoria
Gordon, William M.	Peoria	Moore, George W.	McLeansboro
Grant, Lawrence M.	Peoria	Morehart, Charles	Pontiac
Grimm, Daniel E.	Morton	Moreton, Charles E.	Stonington
Hammond, Virgil	Mackinaw	Morris, Franklin C.	Peoria
Hanson, Fred C.	Schofield, Wis.	Morrow, Eugene M.	Greenville
Hardcastle, Arthur J.	Royalton	Moses, Basil	Chicago
Harmon, Henry A.	Winegar, Wis.	Muller, Alfred	Peoria
Harris, Harvey B.	Manito	Nester, John M.	Muscatine, Ia.
Harris, Melvin	Vienna	Nickel, Walter J.	Pekin
Harris, Richard O.	Yale	Nolan, Gilbert F.	Owaneco
Hasty, Glenn F.	Mackinaw	Northrup, Archie	Trivoli
Hedrick, Cleone	Peoria	Otto, Leslie C.	Oshkosh, Wis.
Heppner, William J.	Peoria	Paasch, Louis H.	Rock Island
Hermansen, Harold P.	St. Croix Falls, Wis.	Palmer, Loren	Warsaw
Hicken, Alfred	Peoria	Perry, Joseph	Peoria Heights
Hill, Ruben	Peoria	Peterson, Herbert N.	Knoxville
Hilsenhoff, Earl H.	Monmouth	Pleshe, Louis	Rutland
Hiner, Hobart W.	Peoria	Pond, Ray E.	Chapin
Hocking, Earl H.	Fairfield	Puterbaugh, Byron E.	Eureka
Hodapp, Albert	Carlyle	Rand, Charles F.	Seattle, Wash.
Hoerr, Otto E.	Strawn	Randolph, Leo	Peoria
Hoey, Nicholas H.	Peoria	Rang, Leo	Camden
Hoing, George F.	Macomb	Rector, George	Olney
Hollgren, Albin P.	Cambridge	Roads, Daniel W.	Pittsfield
Hoffert, George A.	Peoria	Rogers, Clarence E.	Brownsberg, Ind.
Honness, Harold C.	Peoria	Romolo, Joseph	Peoria
Horton, John R.	Carrier Mills	Rose, Eugene	Cooperstown
Hoswell, E. James	Toluca	Rosenberg, Lloyd K.	Galesburg
Howard, Clarence R.	Louisville	Rutherford, Thomas	Buffalo
Hughes, Charles A.	Edmonton, Ky.	Schlipf, John Jr.	Peoria
Jass, Immanuel R.	Peoria	Schmidt, George F.	Fairfield
Johnson, Harold H.	Mason, City, Ill	Schreckenber, Theophil	Peoria
Johnson, Walter H.	Madison, Wis.	Schuette, Walter H.	Quincy
Jonas, Anthony L.	Kankakee	Scullion, Henry C.	Beardstown
Jordan, Walter J.	Pittsfield	Seelye, John Jr.	Pekin
Jourdan, Lee R.	Newton	Sevens, Alfred C.	Fiatt
Joyce, Edmund H.	Galesburg	Severs, Harold	Monmouth
Kazarowski, Arthur	Kewanee	Shaw, William	Farmington
Keen, Gladstone	Fairfield	Shernak, John	Peoria
Kennedy, Roy M.	Monmouth	Shoemaker, Herbert L.	Peoria
Kinkade, George B.	Hamilton	Sigler, Edward C.	New Canton
Kinslow, George T.	Mason City	Siminski, Edward	St. Cloud, Minn.
Lange, George A.	Beloit, Wis.	Slagle, Elmer E.	Oregon
Lasley, Charles D.	Centralia	Sloat, Raymond J.	Centralia
Leighton, William L.	Galesburg	Smith, Edward J.	Peoria
Linder, Clarence H.	Dundas	Smith, Ransom G.	Swan Creek
Lindsey, Simon L.	Peoria	Smith, Ray	Oshkosh, Wis.
Litherland, Chris	Lawrenceville	Smith, Richard P.	St. Joseph, Mo.
Litherland Lawrence E.	Lawrenceville	Snell, Howard G.	Chandlerville
Littlefield Clifford M.	Eldorado	Snyder, Fred L.	Williamsville
Littrell George E.	Peoria	Sprouse, George G.	Bloomington
McCandless James C.	Riverton	Strohmer, John	Muskegon, Mich.
McCans, Archie D.	Birmingham, Pa.	Sullivan, Charles L.	Ft. Atkinson, Wis.

Sullivan, William M. Ottawa
 Surgeon, James R. Hamburg
 Sweeney, George W. Peoria
 Sweeney, John Mt. Olive
 Taylor, Max R. Rushville
 Taylor, William A. Orchardville
 Templeton, Fred Dorchester
 Terry, Chester L. Petersburg
 Thompson, Ben Newton
 Thompson, Ben H. Peoria
 Thrawl, James E. Jacksonville
 Timmons, Russel M. Petersburg
 Tompkins, Lawrence B. Farmington
 Treff, Walter R. Denver, Colo.
 Trigg, Burt R. Argenta
 Turner, William G. Collinsville

Tyler, Howard G. Peoria
 Walker, Francis L. Winchester
 Wallace, Thoda R. Elvaston
 Walsh, Charles A. Peoria
 Walton, Clyde D. Albion
 Warren, Edward Springfield
 Werner, Russel C. Peoria
 Whalten, Robert M. Peoria
 White, James J. Peoria
 Widmark, Eric W. Peoria
 Wiener, Frank Oshkosh, Wis.
 Winslow, Frank A. Roy
 Wright, Arthur H. Canton
 Wright, Sod. Carterville
 Yarnall, William A. Kilbourne
 Zierten, Harold J. St. Cloud, Minn.

TRACTOR STUDENTS

Benton, C. King Hood River, Ore.
 Dickinson, Charles Peoria
 Gerdes, Elmer E. Mapleton
 Grimm, Daniel E. Morton
 Hoerr, Otto E. Strawn

Johnson, Clarence C. Princeton
 Siegle, Fred E. Oakville, Ia.
 Thrawl, Neval Peoria
 Vierling, George Oakville, Ia.

SUMMER SESSION, 1921

Aitchison, Hazel E. Wyoming
 Andreen, Emma Woodhull
 Archer, Glenn C. Great Bend, Kansas
 Arnold, Agnes Pekin
 Bader, John A. Quincy
 Bailey, Margaret L. Pekin
 Bain, Alva E. Assumption
 Bangert, Louis Lincoln
 Bardonner, Nello Arcadia, Ind.
 Barnes, Amy S. Huntington, Ind.
 Barton, Harry Peoria
 Barton, Lester L. Peoria
 Beck, Erwin Ross Peoria
 Becker, Ella Pekin
 Becker, Joseph Peoria
 Bell, Russell M. Jerseyville
 Bennett, Harry J. Williamsfield
 Bennett, Joseph F. Mattoon
 Bevan, William A. Spring Valley
 Bibb, Anna Mary Peoria
 Bonjean, Peter P. Peoria
 Bourscheidt, Jean Peoria
 Bouxsein, Carl H. Spring Valley
 Branham, Elmer Jacksonsville
 Brill, Harry R. Center Point, Ind.
 Brosse, Mrs. Agnes A. Pekin
 Brown, Bernice Pekin
 Brown, Cleo. C. Dallas City
 Brown, Gladys F. Peoria
 Brown, Oscar L. Boone, N. C.
 Browne, S. Dill Burlington, Iowa
 Brunsmann, Dr. Arthur R. Peoria
 Buehrig, Donald Mason City
 Bumgarner, Earl R. Akron, Ohio
 Burns, Daniel Springfield
 Burns, Robert F. Galesburg
 Burroughs, Mary M. Peoria
 Bush, Margaret Peoria
 Callahan, Eileen M. Peoria
 Carley, Mildred F. Quincy
 Cartwright, Ethel L. Elbing, Kansas
 Case, Bertha Peoria
 Cation, Margaret A. Peoria
 Cawvey, Amos J. Marion
 Chapman, John F. Peoria

Charleson, Merrill E. Flora
 Clark, Hugh Fowler, Ind.
 Clark, William Peoria
 Clute, Mary Evelyn Brimfield
 Coddling, Roy E. Watago
 Cohen, George L. Peoria
 Collins, Cecil Sour Lake, Texas
 Collins, Mary Peoria
 Crahan, Josephine Laura
 Crawford, Mabel Delavan
 Cunningham, Jane Pekin
 Damon, Russell Ingram Peoria
 Davis, Laurel E. Peoria
 Davis, Malvern Sesser
 Denney, Russell M. Salem, Ind.
 Dennis, Fern E. Pekin
 Dexter, H. M. Grand Rapids, Mich.
 Dix, Ruth St. Louis, Mo.
 Doerr, George Albert Peoria Heights
 Donovan, W. R. Tallula
 Doran, Mabel A. Peoria
 Dorman, La Porte Peoria
 Dorman, Marion P. Peoria
 Doubet, Earl W. Peoria
 Dougherty, Beulah Mendon
 Douglas, Zara Indianapolis, Ind.
 Drury, Lawrence V. Jerseyville
 Dunn, Abigail A. Peoria
 Ealey, Edward A. Peoria
 Eckert, Eugene C. Herrin
 Edwards, Ursuline K. Ft. Worth, Texas
 Eichhorn, Alice Sheboygan Falls, Wis.
 Eichhorn, Dee J. Peoria
 Eklund, Carl L. Sycamore
 Elias, Joseph L. Fairview
 Ensor, Marshall H. Olathe, Kansas
 Erswell, William H. Peoria
 Evans, Mrs. Ethel Gallup, New Mexico
 Farthing, Samuel N. Odin
 Fawver, Russell S. Gibson City
 Ferguson, Elsie M. Chillicothe
 Finnegan, Mary M. Brimfield
 Firth, Mrs. Mary A. S. Bartonville, Peoria
 Fox, Arthur B. Parsons, Kan.
 Frank, John K. Peoria

Fritchle, Clarence D.	Peoria	Kreyling, Oldham A.	St. Louis, Mo.
Frye, Mrs. Edith R.	Peoria	Krughoff, Mildred	San Jose
Fudge, James D.	Yale	Lanham, Glenn D.	Bay City, Mich.
Fulgham, Byron	Darrisville	Lashbrook, Lowell M.	Cooperstown
Fuller, Albert S.	Peoria	Lee Floyd W.	Pekin
Fuller, Donald V.	Windom, Minn.	Lev, Morris	Peoria
Gaines, Harry N.	Dayton, Wash	Linder, Clarence H.	Dundas
Gamback, J. C.	Peoria	Litherland, Lawrence E.	Lawrenceville
Garioian, George S.	St. Louis, Mo.	Lux, Percy A.	Milwaukee, Wis.
Gilbert, Josephine	Peoria	McCandless, James C.	Riverton
Gilchrist, J. P.	Osceola, Iowa	McCann, Woodie Inge	New Orleans, La.
Gillett, Alta	Trivoli	McCans, Archie D.	Birmingham Seminary, Pa.
Goldsbrough, Theo	Peoria	McCluggage, Elsie M.	Peoria
Gordon, Hope L.	Alta	McCluggage, Florence	Peoria
Gouker, Celia	Pekin	McCormick, Donald D.	Emden
Graham, Helen	Paris	McCormick, James	Peoria
Gram, Florence	Media	McIntyre, Mary E.	Wyoming
Gregg, Hazel	Peoria	Mackemer, Eva V.	Peoria
Griffin, John J.	Clinton	Main, Carson E.	Nebo
Grimes, L. H.	Bayard, Iowa	Mamoser, Frank J.	Tentopolis
Gustafson, Willard H.	Peoria	Mavity, William A.	Pekin
Haddigan, Michael, Jr.	Peoria	Meinders, Elmer L.	Peoria
Hall, Samuel F.	Princeton, Ind.	Meister, Charles A.	Ashtabula, Ohio
Haman, Ralph	Scioto Mills	Meleas, Paul	Peoria
Hankins, Presley L.	Effingham	Mellor, Samantha	Peoria
Harker, Donald E.	Peoria	Mendenhall, Elma	Westfield, Ind.
Hartz, Madaline	Washington	Miller, Bert E.	Bay City, Mich.
Hasty, Glen F.	Mackinaw	Miller, Claude S.	Bloomington
Hawkins, Ruby D.	Centralia	Millner, Eugene B.	Peoria
Hayward, Dorothy G.	Peoria	Miner, Rhoda	Pekin
Headley, Mrs. Anna N.	Peoria	Misner, Dorothy	Peoria
Heath, Alfred W.	Austin, Texas	Mitchel, James E.	Springfield
Heinrich, Gertrude L.	Peoria	Mobley, Paul N.	No., Manchester, Ind.
Hemmer, William A.	Spring Valley	Moore, Arthur J.	Springfield
Henderson, Alice B.	Peoria	Moore, Carl B.	El Paso
Hercules, Leo	Milwaukee, Wis.	Moore, Clyde F.	Havana
Hewitt, H. W.	Saskatoon, Sask.	Moore, Lillian C. Mrs.	Boonville, Ind.
Hiatt, Alfred H., Jr.	Peoria	Moreton, Charles E.	Stonington
Hicks, Clarence E.	Indianapolis, Ind.	Morris, Carmen E.	Peoria
Hilliard, Helen	Peoria	Morris, Franklin C.	Peoria
Himmel, Winfred	Pekin	Murray, Robert E.	Circleville, Ohio
Hiner, Hobart W.	Peoria	Nelson, Fred J.	Chicago
Hodapp, Albert	Carlyle	Nesheim, Elmer	Blanchardville, Wis.
Hodgson, Lee M., Jr.	Clarksville, Tenn.	Nester, John M.	Muscatine, Iowa
Hoey, Nicholas H.	Peoria	O'Malley, Lorraine	Springfield
Hogan, Beatrice	Peoria	Otter, Grace	Louisville, Ky.
Hotchkiss, George M.	Peoria	Parsons, Elmer R.	Forrest
Houghton, Esther M.	Farmdale	Pauli, Anna E.	Peoria
House, Harry J.	Elwood, Ind.	Pauli, Gertrude A.	Peoria
Howard, Robert L.	Peoria	Pauli, Lillian	Peoria
Humphrey, George C.	Avon	Pearson, Roy W.	Ashtabula, Ohio
Hyte, Charles	Terre Haute, Ind.	Pease, Lawrence N.	Madison, S. D.
Jack, Clarence A.	Tiskilwa	Peterson, Minnie M.	Peoria
Jack, Matthew	Macomb	Petrie, Margaret H.	Peoria
Jamison, Grace S.	Peoria	Phares, W. M.	Madison, S. D.
Johnson, Charles L.	Galveston, Tex.	Pitman, Roy G.	French Lick, Ind.
Johnson, Berenice J.	Bishop Hill	Plack, Lenora A.	Oak Hill
Johnson, Bertha M.	Bishop Hill	Plattenburg, Elisabeth	Peoria
Johnston, Naomi	Elmwood	Preston, Edith	Pekin
Jones, Berneice	Peoria	Pulliam, Curtis E.	Mt. Vernon
Jordan, Walter	Pittsfield	Puterbaugh, Byron E.	Eureka
Kearney, Winifred	Peoria	Quinn, Agnes Helen	Peoria
Keith, Stuart W.	Peoria	Quinn, Catherine C.	Peoria
Keller, Georgia	Kingsville, Ohio	Ramsey, Hazel	Fairbury
Keller, John H.	Kingsville, Ohio	Rand, Charles F.	Seattle, Wash.
Kennedy, Roy M.	Monmouth	Randolph, Leo	Peoria
Kidwell, Edgar	Alliance, Ohio	Reinheimer, Charles P.	West Frankfort
Kief, Hilma L.	Hartsburg	Ricca, Domenic	Bartonville
Kimpton, Eva C.	Toledo, Ohio	Ricca, Jennie	Bartonville
Kimpton, Laura E.	Grand Haven, Mich.	Ricca, John	Bartonville
Kinkade, George B.	Hamilton	Ries, France	Peoria
Koyl, Helene	Sault Ste. Marie, Mich.	Ringel, Jena sm.	Peoria
Kraeger, Edwardine A.	Pekin	Ripper, Anneva	Pekin
Kraker, Kenneth L.	Peoria	Ripper, Frances	Pekin

Ripper, Irene E.	Pekin	Todd, George A.	Ottawa
Risser, Emerson	El Paso	Tomlinson, Hilda	Peoria
Ritcher, George	Alton	Tompkins, Lawrence B.	Farmington
Ritter, Sister Annunciata	Peoria	Trigg, Burt R.	Simpson
Roads, Daniel W.	Pittsfield	Troth, Olive G.	Elmwood
Robinson, Katheryn	Bartonville	Trowbridge, Loreta D.	Green Valley
Rosenbery, Lloyd K.	Galesburg	Tuttle, Edith M.	Kingsville, Ohio
Ross, Myra J.	Peoria	Tyler, Allen C.	Spring Valley
Roth, John H., Jr.	Peoria	Tyler, Mrs. Dena A.	Spring Valley
Rotz, Lawrence	Harristown	Vandenburg, Mary J.	Peoria
Rue, Mary Eloise	Peoria	Van Dusen, Helen	Chillicothe
Sandstrom, Cuthbert F.	Centerville, Ia.	Van Etten, Daniel	Richmond, Ind.
Sawyer, Jessie A.	Peoria	Van Osdol, Mildred	Pekin
Schaefer, William M.	Alton	Van Sickle, Frances M.	Elmwood
Schleich, Effie	Metamora	Vertrees, J. R.	Janesville, Wis.
Schmidt, Walter H.	Peoria	von Levern, Louise B. Mrs.	Hibbing, Minn.
Schrader, George E.	Des Moines, Ia.	von Levern, William P.	Hibbing, Minn.
Severns, Alfred C.	Fiatt	Waggoner, Lillian M.	Peoria
Seelye, John, Jr.	Pekin	Walford, Albert	Oak Hill
Shadinger, Max H.	Snohomish, Wash.	Walker, Fred	Mason City
Sigler, Edward C.	New Canton	Wallace, Thoda R.	Elvaston
Simons, Robert W.	Boulder, Colo.	Wallace, Yolande	St. Louis, Mo.
Sipfle, Edith V.	Pekin	Walters, Thomas Berl	Elkville
Slagle, Elmer E.	Oregon	Ware, Noel C.	Liberty Center, Ind.
Smith, Imogene	Peoria	Warren, Edward	Springfield
Soldwedel, Mary F.	Peoria	Wasson, Elma	Elmwood
Speaker, C. L.	New Orleans, La.	Wells, Gilbert A.	Richland Center, Wis.
Spouse, George G.	Peoria	Westphal, Herman F.	Peoria
Stokes, Edwin F.	Indianapolis, Ind.	Whaley, Hugh E.	Reading, Mich.
Stone, Mrs. Genevieve	Peoria	Wiley, Veril O.	Monticello
Strohmier, John	Muskegon, Mich.	Williams, Emma M.	New Orleans, La.
Surgeon, James	Hamburg	Williams, Harvey S.	Austin, Texas.
Swayze, Paul D.	Baldwin, Kan.	Williams, S. Horace	Greeley, Colo.
Taylor, Robert B.	Peoria	Winkler, Olga E.	Metamora
Taylor, Wilhelmina	Elmwood	Witham, Frances	Chillicothe
Theis, Vera G.	Peoria	Woods, May King	Peoria
Thompson, Ben	Newton	Wright, Mrs. Emily C.	Des Moines, Ia.
Thompson, Ben H.	Peoria	Yarnall, William A.	Kilbourne
Thompson, Maurice M.	Salem, Ind.	Zimmerman, Alyda A.	Pekin
Thorne, Anne M.	Mossville		

SUMMARY OF STUDENTS

	Men	Women	Total
Graduates.....	1	3	4
Seniors.....	15	22	37
Juniors.....	18	24	42
Sophomores.....	68	65	133
Freshmen.....	127	69	196
Academy.....	19	12	31
Special.....	7	9	16
Vocational.....	236		236
Tractor.....	9		9
Summer School.....	192	125	317
Evening School.....	464	37	501
Applied Psychology.....	15		
Architectural Drawing.....	20		
Automobile (Advanced).....	58		
Automobile (Elementary).....	62		
Automobile (Electricity).....	27		
Chemistry.....	22		
Commercial Art.....	17		
Engraving.....	17		
Flower Making.....	11		
Jewelry.....	63		
Mechanical Drawing.....	18		
Machine Shop.....	20		
Practical Electricity.....	45		
Sewing.....	11		
Shop Mathematics.....	32		
Woodwork.....	63		
Conservatory of Music.....	158	242	400
	1314	608	1922
Deduct names counted more than once.....			227
			1695
Horological Department.....	672	10	682
			2377

RESIDENCE OF STUDENTS

School of Arts and Science and Music:

From Peoria.....	1102	
From Illinois, outside of Peoria.....	442	
From other states.....	145	
From other countries.....	6	1695

Horological Department:

From Peoria.....	74	
From Illinois, outside of Peoria.....	21	
From other states.....	569	
From other countries.....	18	682

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APPLICATION FOR ADMISSION TO BRADLEY INSTITUTE

USE THIS BLANK

Mail it to Bradley Polytechnic Institute, Peoria, Illinois.

**If you wish to enter Bradley Institute, it is important
that you forward this application at once.**

Name _____
First name in full. Middle name. Last name.

What is your
date of birth _____

Present P. O. Address _____

Name of Parent
or Guardian _____
and _____

P. O. Address _____

The Institute offers great variety of work-college and vocational. Check the lines which especially interest you.

I. COLLEGE COURSES

Science
Engineering
Premedical
Literature
Manual Training
Domestic Science
Teaching (Grades or H. School)
Business and Commerce
Conservatory of Music
Secretarial Course
Art
Social Science

II. VOCATIONAL COURSES

Automobile
Practical Electricity
Machine Shop
Woodworking
Drafting
Watchmaking
Jewelry
Engraving
Optics
Tractor (Winter)
Evening Classes

Are you a high school graduate?
State school and date _____

If not, what school have you
attended and for how long _____

Have you attended any college?
State school and date _____

State what practical or teaching
experience you have had _____

Signature of applicant _____

Date _____ 19 _____

(OVER)

HIGH SCHOOL RECORD

(To be filled by applicant; not by school official)

State opposite each study below, the number of units you have had.

A unit is the equivalent of one hour daily for one school year.

ENGLISH _____ units

FOREIGN LANGUAGE

Latin _____ "

German _____ "

Spanish _____ "

French _____ "

MATHEMATICS

Algebra, Elementary _____ "

Algebra, Advanced _____ "

Plane Geometry _____ "

Solid Geometry _____ "

Commercial Arithmetic _____ "

SCIENCE

Physics _____ "

Botany _____ "

Chemistry _____ "

Zoology _____ "

Physiology _____ "

Physical Geography _____ "

Commercial Geography _____ "

HISTORY _____ "

SHOP _____ "

DRAWING _____ "

COOKING _____ "

SEWING _____ "

Other subjects as listed below:

_____ _____ "

_____ _____ "

_____ _____ "

_____ _____ "

For official verification of this, the Institute should address

Superintendent, or Principal of

High School.

(City)

(State)

On receipt of this application, the Institute will send for your school record and then report finally to you respecting your admission.

UNIVERSITY OF ILLINOIS-URBANA



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